

SEQUENCE LISTING

<110> Yen-Potin, Frances
 Denison, Blake
 Bour, Barbara
 Bihain, Bernard
 Dumas Milne Edwards, Jean-Baptiste
 Duclert, Aymeric
 Bougueleret, Lydie

<120> APOLIPOPROTEIN A-IV-RELATED PROTEIN: POLYPEPTIDE, POLYNUCLEOTIDE
 SEQUENCES AND BIALLELIC MARKERS THEREOF.

<130> GENSET.50CP2C

<141> 2000-06-22

<150> US 09/599,362
 <151> 2000-06-21

<150> PCT/IB99/02058
 <151> 1999-12-20

<150> US 09/469/099
 <151> 1999-12-21

<150> US 60/113,686
 <151> 1998-12-22

<150> US 60/141,032
 <151> 1999-06-25

<160> 6

<170> Patent.pm

<210> 1
 <211> 81001
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> 10946..12946
 <223> 5'regulatory region

<220>
 <221> exon
 <222> 12947..12958
 <223> exon 1

<220>
 <221> exon
 <222> 13470..13526
 <223> exon 2

```

<220>
<221> exon
<222> 13641..13752
<223> exon 3

<220>
<221> exon
<222> 14271..15968
<223> exon 4

<220>
<221> misc_feature
<222> 15969..17969
<223> 3'regulatory region

<220>
<221> allele
<222> 1239
<223> 20-828-311 : polymorphic base C or T

<220>
<221> allele
<222> 12347
<223> 17-42-319 : polymorphic base C or T

<220>
<221> allele
<222> 15241
<223> 17-41-250 : polymorphic base C or T

<220>
<221> allele
<222> 42218
<223> 20-841-149 : polymorphic base A or G

<220>
<221> allele
<222> 45442
<223> 20-842-115 : polymorphic base A or G

<220>
<221> allele
<222> 77058
<223> 20-853-415 : polymorphic base C or T

<220>
<221> primer_bind
<222> 929..949
<223> 20-828.pu

<220>
<221> primer_bind
<222> 1357..1377
<223> 20-828.rp complement

<220>

```

```

<221> primer_bind
<222> 12029..12050
<223> 17-42.pu

<220>
<221> primer_bind
<222> 12581..12603
<223> 17-42.rp      complement

<220>
<221> primer_bind
<222> 14992..15012
<223> 17-41.pu

<220>
<221> primer_bind
<222> 15460..15482
<223> 17-41.rp      complement

<220>
<221> primer_bind
<222> 42070..42090
<223> 20-841.pu

<220>
<221> primer_bind
<222> 42572..42591
<223> 20-841.rp      complement

<220>
<221> primer_bind
<222> 45328..45347
<223> 20-842.pu

<220>
<221> primer_bind
<222> 45863..45883
<223> 20-842.rp      complement

<220>
<221> primer_bind
<222> 76644..76664
<223> 20-853.pu

<220>
<221> primer_bind
<222> 77166..77185
<223> 20-853.rp      complement

<220>
<221> primer_bind
<222> 1220..1238
<223> 20-828-311.mis

<220>
<221> primer_bind
<222> 1240..1258

```

```

<223> 20-828-311.mis      complement

<220>
<221> primer_bind
<222> 12328..12346
<223> 17-42-319.mis

<220>
<221> primer_bind
<222> 12348..12366
<223> 17-42-319.mis      complement

<220>
<221> primer_bind
<222> 15222..15240
<223> 17-41-250.mis

<220>
<221> primer_bind
<222> 15242..15260
<223> 17-41-250.mis      complement

<220>
<221> primer_bind
<222> 42199..42217
<223> 20-841-149.mis

<220>
<221> primer_bind
<222> 42219..42237
<223> 20-841-149.mis      complement

<220>
<221> primer_bind
<222> 45423..45441
<223> 20-842-115.mis

<220>
<221> primer_bind
<222> 45443..45461
<223> 20-842-115.mis      complement

<220>
<221> primer_bind
<222> 77039..77057
<223> 20-853-415.mis

<220>
<221> primer_bind
<222> 77059..77077
<223> 20-853-415.mis      complement

<220>
<221> misc_binding
<222> 1227..1251
<223> 20-828-311.probe

```

<220>
 <221> misc_binding
 <222> 12335..12359
 <223> 17-42-319.probe

<220>
 <221> misc_binding
 <222> 15229..15253
 <223> 17-41-250.probe

<220>
 <221> misc_binding
 <222> 42206..42230
 <223> 20-841-149.probe

<220>
 <221> misc_binding
 <222> 45430..45454
 <223> 20-842-115.probe

<220>
 <221> misc_binding
 <222> 77046..77070
 <223> 20-853-415.probe

<400> 1
 cctcctgata tgacatcatg tgaacttctc acttcacctt taagtattct tagccaggca 60
 cagtggcaca tgcttgaaat cccagcactt tgggaggctg aggcaggggg atcgcttgag 120
 gccaggattt caagaccagc ctgagcaaca tgtcaagacc cccacctcta caaaaaatta 180
 aaaagttagc caggtgtggt ggtcatgcct gtagcccccag ctacttagga ggctgagggtg 240
 ggaggatcac ttgagcccag gagtttgagg ctgcagttag ctatgatcac accactgcac 300
 tccagctgga tgacagagca agaccctgtc tcaaaaaaca aaacaaaaca aaaaacaccg 360
 aaaaaacccc acagtaaatt agaagaaagc tgcataaatt agaagaagct gatgtgaaat 420
 cctgagtcga tgggttcaatt taggagggac catctggaga gcagggaacc cccaaaagtc 480
 agttttcttta ggcttatttc cttggggccag ccaaattttct cagggagaat gttgttccat 540
 tttcaatatg gggaaagatg gtgaactgag gagtctttta aaaaaattta tttttgagat 600
 ggggtctcat tctgtcgccc aggctagaga gcagtagcat gatcatggct cactgcggtc 660
 tctaactcgt gggctcaagt aatccttctg cctcagcctc ctgagtagct aggaccacag 720
 gtgccaccat acctggctaa tttttgtatt ctttgagag acaggggtctc gctacattgc 780
 ccaggctggt atcgaactcc tgggctcaag cgatcctcct gccttgccct ctcaaagtgt 840
 tgggattaca ggcagtagcc actgtgcccga gcctcaaaat ttaatgtata aagttttcct 900
 taatttttct tagcacaata accctggccc ccaacaatac ctagttttct ccaggccgga 960
 gtcccactct tttacccttt tcagagagaa taagcatctg gttttctgct gctttggggg 1020
 taccagcca agtagagttg aagagaacag ctgcttctca aacagactct cgaccaactg 1080
 ccataatttct agtcccactg ccaccactc ttccagaaga atgttgacac taatgtcaga 1140
 gcatttgagg agtttagtag tgaaaatcag gggccttctt ggctttctcc actgctgctt 1200
 caaaattcat gtcagggtgtg cctgtcacca ccgtttgayc atttggaagc tttccagctt 1260
 cccaaatggt gttatttttg tctccttttc tattttccct ttgggtttat gcattttgta 1320
 aaaagtgcac ttcaatgccga cgttattgag atttcagaga acagcagagg ctaatgcata 1380
 caattaatcc accgtccgtt actagaagtc aatcggatgc tctttagtct ctcttcccca 1440
 tatactagtt taaaagttat ccattctttc tattcggttt atgggttatc cttaaaattt 1500
 taatattctt gtctgacctt acaaagtcta tagataatca atatccctat ctttctcccg 1560
 aataatgcaa aggetgctga atgctttcac tttgatctct cctttcccat ttccagggtg 1620
 cttcgggtctg atatttttagt tctctattac ttttaacacc tcttccaaag tagtcccttc 1680
 atcaatagat gtttttgagc cctccctacc atgtgataag cactgggtcta ggcaactggga 1740
 gtacagtagg aaatgagata aacttgccca ggtgtagggt ggcttacacc tgtaatccca 1800
 acacttttga ggccgaggcg ggcagctcgc ttgagcccat gagttcgaga ccagcctggg 1860

aaacatagcg	agacccccgt	ccctacaaaa	aaatataaaa	attagctggg	catgggtggg	1920
tatgcctgtg	gtcctagcta	ctcagaagac	tgagggtggga	ggatcatctg	agcccagggt	1980
ggtcgaggct	gcagtgatta	caccactgca	ctccatcctg	ggcaacgggtg	agaccctgtc	2040
tcaaaaaaca	aacaaacaaa	caagcaaaaa	aaacccccac	aaactaaact	atgtgtaa	2100
acatttttgt	taggtagaac	tatatgaaat	tgccactatt	tgaccaattt	ttagtgaaaa	2160
ctagtctcat	aagtgtgtgt	gtgtgtat	tcactaatgt	tttttggatt	tacctaaacg	2220
tttactaatt	tcattgctcc	ccatgtctcc	ttctatccta	ttcctttttt	ctgggttctg	2280
tttccttttc	agatttttag	tagttctttt	cagtgaggat	ctgtgagtg	taaactctct	2340
ttctctgaaa	ttaacttctt	cctctcaaat	aatagttcac	ctgagtataa	gtcttggttg	2400
gccattaatt	tcctttcagt	ctttagaagg	tacattgatg	ataaatcagt	tgccgggtta	2460
atcatgcttc	gtgtgtagat	cattagtctt	tctctttggg	tgattttaag	atatccattg	2520
ccttcagtgt	tctgcagatt	cctgtgatgt	gtcctcattt	ggttgtgtgt	taatttttcc	2580
taccaagact	caggatgctt	cctgtacctg	aggattccgg	tcacatcttg	cttcaatgtt	2640
tgaattttct	cagccatcat	cttttgaata	ttgcctcttc	cacagtccct	gtgttctctt	2700
cgtggaaatc	ctacaggcat	atattggacc	tcccattctg	tcctccatgt	ctcttacogt	2760
ctattcatac	cctccttttt	atatttaatt	tttttgagac	agagttttgc	tctgtggccc	2820
aggacggagt	gcaattgcac	gatcttggct	cacggcaaac	tctgcctccc	aggttcaagc	2880
tattctcctg	cctcagtcct	ccaagtagct	gggattacag	gcacgcacca	ccacgcccgg	2940
ctaatttttg	tatttttagt	agagacgggg	tttcaccata	ttggccaggc	tgggtctgaaa	3000
ctcctgacct	caggtgatcc	acccacctcg	gcctcccaaa	gtgctgggat	tataggcatg	3060
agccaccatg	cctggccaat	atcacccgcc	tcggcctccc	aaagtgtctg	gattacaggc	3120
atgagccacc	gtgcctgggc	aatatcctcc	tttttatttc	tgtgattctt	tctgtgtgat	3180
tttctcagat	ctaccttcta	gcttactaat	tctctctcca	actgtagcta	aatgtgtttt	3240
atattataat	gactatattt	ttttcactta	tagatgttct	atttaattct	ctttcttttt	3300
gacaaataga	acttatttca	aaacaaacaa	aaggccaggc	atggtggttc	atgcctgtaa	3360
tcccagtgct	ttgggaggct	gaggcaggag	gattgcttga	gcccaggagt	tcaaggccag	3420
cctgggcaac	atagtggatg	cctttctcta	ccaaaaaaat	aaaaaatcag	ctgggtgttg	3480
tgggacactc	ctgtagtccc	agaaactaca	gattcttggg	aggcagaggc	tggaggattg	3540
cttgaggcag	aggctggagg	attgcttgag	cctgggagg	tgaggctgca	gtgaactgtg	3600
atcatgccac	tgactcttag	cctgggtgac	aaagtggatg	cctgtctcaa	aaacaaataa	3660
acaaacaagc	aaagaaacaa	aaaaatgctt	acacagggtta	ctactttctt	gctgggatag	3720
ttttaacact	gcgttaagca	taaacacctt	tctttctgaa	atgtatttga	gatgtatatt	3780
gattttttaa	aaacccacac	ctccattaa	gtctggtgat	agcagtagaa	acaatgtaga	3840
gtggctccac	aatcatatag	atgttttttg	tgcgttctga	gatggagtcc	aggaacacca	3900
agtaaagact	gctacctcac	agtttacatc	tgagttctta	gaagacaaga	ctgaaggaga	3960
acaattttgta	acaagattta	cttgcccggg	gtgtggtggc	tcacacctgt	aatcccagta	4020
ctttgggagc	tttgggagtc	cgagggtggg	ggatcacctg	aggctcaggag	ttcaagacca	4080
gcctggccaa	catggaataa	cccccatctc	tactaaaaat	acaaaaatta	gccaggcacg	4140
gtggcacacg	cctgtaatcc	cagctactca	ggaggctgag	gcaggagaat	cgcttgaacc	4200
caagtgactg	ggttgccgag	agccgagatc	acgccactgt	actccagcca	ccctgggtga	4260
cagagtgaga	ctctgccaaa	aaaaaaaaaa	aaaaaaaaaa	aatacttact	gttcagaagg	4320
agaagtcata	atgttgcttt	aaagaacagg	tcacaaaaga	aagactctag	aagatcttct	4380
cacttggtgc	atatcaagtg	tctattttgag	accatacac	ttgcttaatc	catgtgttta	4440
aggcaaaagt	gctgctgctg	agcagtaagg	aataaggtag	ctgctaacct	ttaccaatct	4500
acatttttaa	atccttctta	ctacacatcc	agaatgagtc	agcaattctt	gtgtattaaa	4560
aaacaaaaac	acaaaaacaa	gtagaggggc	aactctctta	aaaatgcagc	tatccgcaaa	4620
cactgtgata	caaaacgaca	gtcaaggaaa	gggcagcaca	aacaagttca	cctggaagga	4680
atctgttcaa	agtctctgga	tttaagaaca	agttccctaa	aagctcttac	ttacagaaga	4740
aatcggataa	taaaatgtagc	tggaaatgatg	gaatttctta	agttttcatt	ttgttttggg	4800
caactctgtg	gcccaggctg	gagtgacagt	gcttgatcac	ggctcactgc	agcctcaacc	4860
tcccaggctc	tgggtgatcct	cccacctcag	cctcctgagt	ggctgggact	acaagcatgt	4920
gtgccaccat	gctaggctaa	tttttgtatt	ttatttttag	tttttttttt	tttttttttt	4980
tttttgtaga	gacaggtttt	gccatgttgc	caaggctggt	ctcaaattcc	tgggttcaag	5040
tgatcctccc	atctcagcct	tccaaagagc	tgggattaca	ggcatgagct	actgcacctg	5100
gcctagaatt	ttttaaaaat	cactatctgg	caactctcag	gataaatattc	gattcaggca	5160
aggatcatca	atgaatgcta	aaaccattgg	gtgaaaaatt	gttgacagaat	gggatgctca	5220
catggcttca	aagtattgct	ccacaaatta	cttatcaata	acgtaaaaaa	ccaaacttta	5280

ctagccatgg	agaaatctgg	ttgttatcac	tttaatggag	tgatcaaact	taacatcact	5340
aatagagtg	caacctccag	ctaggataca	gtaagaaggg	ccagatatca	cctagtattt	5400
ttgccaaaa	tgtttaacct	taatctaate	atgagaaagt	aatcactcaa	atccagaatg	5460
tgggacattt	tacaagatgt	cctccttgca	ctcttccaaa	aaaaaatcaa	tgatcatgaaa	5520
acaaacaaat	ggtgggggtg	gggagaacgg	ttctaaattt	aaaaactaaa	gtgggataac	5580
aaccagatga	gatgtggttag	agcttgaatt	tacagagaga	gaaaaacaac	tatgaaagca	5640
ttttggggaa	aatctgaata	tgtaggatat	gttagatgat	attaaggaat	tgtgttaatt	5700
ttcaaaggta	tgataatggt	tttttctttt	gtaaaagagt	ccttattttt	cacaatgtat	5760
gttgaagtat	tcagagtga	gtgtcatggt	ggctataatt	atttcaaagt	gttccacaca	5820
caaagcacat	accacataca	catatacata	tacctccaac	caactcaaaa	catgttcaac	5880
actgaaacta	taagatgcc	ccaaacaggg	aagcatgagt	gtgtgttgca	tctacccatt	5940
gtatcaatcc	agggttcagtc	agaaaaacaa	aagccattcc	acgtatttca	agcatgaaag	6000
gctttaaaa	aaaaaattaa	agggtttatcc	aactcttgga	agggtggag	gagtgaccac	6060
cttggtttgc	agttcagaag	gagtgaactc	caaacgctca	ttagtaagt	gctacaaatg	6120
ggaagctcgc	cttatttatgc	ctgcaatate	aatgcatgtg	attcctggga	aggtcaccca	6180
gaagctgctt	taaaactcaa	gcctgtccat	gcttctgtct	gcaaccggca	ttgaaacata	6240
atggcctctc	ctcttccgct	tcacgctggc	tgactctaac	ctaggctcat	atagagaagg	6300
gattctagaa	aatgtattaa	tagttccaag	tgctccctct	gcctctcata	aaagacctta	6360
gaaagggcac	tgataatgct	atttgcaaaa	agacaatcca	gcgcagttgt	attttacagc	6420
acaggtctt	taagtttggg	ttatcagcaa	aaaaccatta	gagtatgaga	aattcctttt	6480
taaattgtgg	caaaatatac	ataacataaa	aattaccatt	gtagctattg	tacattgtag	6540
ctaagtatat	agcccagtag	cactaaatac	atttacactg	ttgtgcacca	ctatctagct	6600
ccagaaactt	ttaatcttcc	caaacagaaa	cttgtaccta	ttaaccaata	ccttctcctt	6660
cctcacttct	cctagaaacc	agaattatac	tttctgtctc	tacaaatctg	actattctgg	6720
atacctcaga	atcacagtat	gtgtcggtct	acgactggct	tgtttcaact	agcatcatgt	6780
cttcaagggt	catccacggt	atagcatgtg	tcagatttcc	ttttcttttc	ttttcttttt	6840
tttttttttt	gagacacagt	ctcgctctgt	caccaggt	ggagggcagt	agcacaatct	6900
cagttcactg	cagcctctgc	cttccagggt	caagcaattc	tcgtgcctca	gcctcccaag	6960
tagctggaat	gacaggcatg	caccaccaca	cctggctaatt	ttttgtattt	ttagtagaga	7020
cggggtttta	ccatattggc	caggctggct	ttgcaattcc	ggcctcaagt	gatctgcccg	7080
tctcggcctc	ccaaagtgtc	gggattacag	gcgtgagcca	ctatgcctgg	cccccgattg	7140
tcattatttta	aggctaagt	atattttgtt	gtctgtatat	accacaattt	gtttattcat	7200
tcactgttca	atggacattt	gggttgtttc	caccctctgg	ttattgtgga	taataactact	7260
aggaacacga	gcatacaaat	atctgctcca	gtccctgctt	ttatcttttg	gataatgcc	7320
cagaggtgga	attgctgggt	cataaggtaa	ttctagatta	aattttttga	gggactgccg	7380
tattgttctc	caccatagct	gcaccatttt	acctttccag	cagcagcgta	caagcgggtcc	7440
agcttctcca	catcttcacc	cacacttget	atttttggct	tttattttat	tttttaaaat	7500
aacattctaa	tgggtgttaa	gtggtcagaa	atggttcttt	taggagtaga	gatagaggcc	7560
agggggatgg	ctcacacctg	taatcccagc	actttgggag	gcctaggtgg	gcggatcact	7620
tggggtcagg	agtttgagat	cagcctggcc	aacatgggtga	aactccatct	ctattaaaaa	7680
tacaaaaatt	cgctgggtgt	ggtgggtgtc	actcccagct	acttgggagg	ctgagggaag	7740
agaatcgctt	gaaccgggga	ggcggtagtt	gcagtgaacc	gagatcacac	cactgtatgg	7800
cctgggtgaca	gagcaaggct	ctgtctcaaa	aaaaaaaaaa	aaaaaaaaaag	agtagagata	7860
gaaaagcatt	gaaaacacag	cctcagctca	gctcagctctg	ccatgggtggg	aagccattaa	7920
ttcttcactc	ttgaaacctt	ttcgtccttg	gtgtggcaga	ggctgcaagt	ctcctctgca	7980
actttattct	tcccttcttt	ctcagttata	aaatccctga	ttttagaaat	atctttattg	8040
agatataatt	catatccatt	aacattcact	acaattgaat	ggttttttagt	atattcacag	8100
atttgtacaa	ctatcaccac	aaactaagtt	tagaactttt	ttcatcatcc	cacaaagaaa	8160
ccccacaccc	attagcagtt	attcactatt	tctcccaaat	caacctcccc	tccctcaaat	8220
agccctaggc	agccaccagt	ctactttctg	tctctaccta	tttgtctttt	ctggacattt	8280
tatacaaatg	agattttaca	acatgtagtc	ttttgtgact	ggcttttttc	ccctagcata	8340
atgttttcca	ggttcactctg	tgggtgtagca	ggtatcagta	cttcaaccct	ttttattgcc	8400
aaataatatt	ccactatatg	gataggtaac	attttgttta	tccattcatc	aattgatgga	8460
catttggtgt	gtttccattt	tcttgactgt	tatgaataat	gttgccatga	acattaatgc	8520
acaagttttt	gtgcagatgt	gtattttcat	gtgtcttggg	tttataccta	ggaatagaat	8580
tgctgagtc	taggagaact	cctccatgtt	taaccattaa	tgaactgccg	aactgttttc	8640
caaagaaatt	gcaccattgt	acaatccac	cagcaatgta	tgagggtaga	atccctgatt	8700

tttaactgat	cattgaactc	aggcccattc	aaaacaaaga	tgacatttcc	taaccttcct	8760
tacaagtagt	tctgaccagt	gagatgggag	agaaggttag	gttttgtcct	taaaagaaag	8820
gagagtggct	gggtgcagtg	gctcacgcct	gtaatcccag	cactttggga	ggccgaggtg	8880
ggcggatcac	ctgaggccgg	gagttcaaga	ctagcctgac	caacatggag	aaacctcgtc	8940
tctactaaaa	atacaaaatt	agctgggcgt	cgtggcgcat	gcctgtaatc	ccagctactc	9000
aggaggctga	ggcaggagaa	tcgcttgaac	ctgggaggtg	gaggttgtga	tgagccgaga	9060
ttgtgccatc	gcactctagc	ctgggcaaga	agagcgaaac	tccatctcaa	aaaaaaaaag	9120
aaagaaagga	gagtacattc	tacactctcc	tctcctccac	cctgccccct	ttccagtggc	9180
tggatgtgga	catggtggta	agctatctta	gatcatgtgg	acaaggga	cacataggga	9240
tattagaacc	tccagacaga	aggaacttag	gaccctggac	agctttgtgg	agcagtgtct	9300
ccataaccagc	gtgaagtttt	gtatgggaga	aaacatacat	ttccagcttt	tgtaagccac	9360
tgttatTTTT	ggctctctct	agagcagcca	aatatataat	ttactaata	tattttcttt	9420
ctgtgattct	tctttatttt	gattatactt	ctacttctct	gccccctctt	taggtgggag	9480
gtgctgctcc	aagcactaac	tcagaatata	gaccctctcc	ctcttgtaat	agtgccagct	9540
tggagttctt	tgcttccact	gtaggggaag	gaaggaaaaa	atatggagaa	ctcacatcca	9600
ctcttcattg	tcctcaaaca	gaagtaacce	atTTTgttct	gctcacagcc	cattggccag	9660
aactaaactgt	atggcccca	tctaattgca	aaggagtctg	ggaagtacag	cacagcacat	9720
ggatctttgg	aaagcgttaa	TTTTctctgc	caaaggcttc	TTTTgttggt	gttgttggtt	9780
gaaatggagt	ccgcgtccgt	caccgcgggt	ggagtgcagt	ggccctatct	cagctcactg	9840
caacctccac	ctcccagggt	caagcactcc	tccagccttg	gcctcccaag	tagctaggat	9900
tacaggcgtg	tgccatcata	cctggctatt	TTTTtTgtat	TTTTagttaga	gacagggttt	9960
taccgtgttg	gccaggctgg	tctcaaactc	ttggcttcaa	gtgatccgcc	tgcttcgggtc	10020
tcccaaagtg	ttgggattac	aggcgtgagc	cactgtaccc	ggccaatact	ggtgttttct	10080
gacctcagcg	TTTTcttttt	ctcctgccat	gtactctccc	tagagatttc	atctactccc	10140
aagtcttcca	ctgctcctat	ctgctgatga	ctcccaaac	tcagtctcca	gccgagactt	10200
ctctcctggg	cttgagacat	atgtatccaa	ctgccagaac	atctccagtg	gacagccttt	10260
gggcacaagg	ccacactagc	ttgtgggtac	aagtaatcac	ccaaagtcaa	tttcagtggc	10320
tctccactcc	cacatttttt	caaccctctg	aaatgttccc	ttcccaaata	ctctgagtct	10380
ctcttctctt	ttgatgaactg	tggTTTTgtg	actggatggt	agctcctgtt	gctttttttc	10440
ctttcaaagt	aattttctct	taggaggctt	cttagccatt	aagcaaatag	acctcaactg	10500
ggcttgcctc	atgcctatct	gaaaccacgc	ttagggttca	gttaggactc	ctgttaatct	10560
gagctctcac	ttcctgtccc	aacctgttta	TTTTTTTTtg	tgaagaaaaa	tatcatcccc	10620
ctagttgctc	agaaacctgg	gaatcattgg	gattTTTTtc	tctccttcac	cttcctcatc	10680
caatcagtea	ccaagtgeta	tcaactctgc	tgctttagta	gccctcaata	tatacttacc	10740
tatcaaccat	cactgctatg	ccataacttca	ggccttcatt	tctcacttgg	attattaaaa	10800
tatccctaaa	tagttcctct	gccttctctc	tggccaccct	cctgagtgat	ctctccatca	10860
tgtacctttc	agtgaactgt	tgcaacaagc	cctttgtgac	ttggtcatag	tctgctctct	10920
tgaaccacca	gagccaagca	cctgggttct	gattctgggt	gcaactctta	ctgcgtgatg	10980
atggacaggc	cacttgatct	cctcaaacct	cagttcctaa	atcaaataga	tgattgaatt	11040
cagtcactta	actttgtatg	tagtaggtag	gcactgtgca	aaacatacta	gtggatatag	11100
agatgaataa	gaaaaagccc	ctgcactcaa	agagctctcg	gattcatcaa	caaattattg	11160
tgcagttaga	tagtaagtgc	tataatccag	gaatatacag	tgttgtgtga	ataatgtgga	11220
atcagtttat	ctccagagca	gaaaaagggt	aaggccgaag	aaggcattca	gagtgatact	11280
ggagctgtgt	agcaggggct	actactgttc	cctcaaatcc	tttcttctct	tcttcctgag	11340
taatagagtc	ctttttcagc	taggcataca	gccatccaaa	ataaaaaacta	tatttcccag	11400
cctccttttc	agctaagtgt	agccatgtga	ctaagttgtg	gccaatggga	tgtcagtaca	11460
agtggtaaat	gcaatatctg	ggatgtgtct	ttaaaaggaa	ggaacatgtc	cttctccttt	11520
tctccttttc	tgttcccttg	gaggtgaact	tggtagctgg	aggtgaagca	gctggaactt	11580
ggatatgaga	gtcttgttga	tgataaatgt	gcaacaagat	aaaagcagcc	cgagctggcc	11640
tacattttaca	tgagaaggaa	ataagactcc	atTTTgttta	agctattctc	ttgcatatat	11700
atatacacat	atatatcagc	taagtgtagc	catgtgacta	acttgtggcc	aatgggagt	11760
cagtatgagt	ggtaagagca	gtatcttTga	tatatatatg	tgtatatata	cacacacaca	11820
tatatataca	tatatgtatg	caagaatata	aaatatacat	gtgtgtgtgt	atatatatac	11880
acacatatat	atgtcccttg	cagccaagtc	taattctaac	taatacaaac	taactctaaa	11940
aatgaatat	atattcacca	ggggataggc	tatttcaagc	agagggaagc	ctgtataaag	12000
gctcagggaa	tgctgtgggt	ttatgtggca	gcagatgaga	ctggaaatga	gtcaggatga	12060
gccacagtgg	aggatgaatt	aatggggcag	gagtgtggta	gaaagacctg	ttggaggcta	12120

tgaatgcaat	caaggtgaca	gacaactggt	gcaatgatgg	tagtggaat	ggaggagagg	12180
ggattgattc	aagatgcatt	taggaccaag	aatcgggagc	ttgtgaacgt	gtgtatgagt	12240
actgtagacg	gagtgggtgt	gtcatcagag	aagatctgag	catttgggct	tgctctcctc	12300
agaggccctg	cgagtggagt	tcagcttttc	ctcatggggc	aaatctyact	ttcgctccag	12360
ttcctggggc	tcagagtccc	tggcccagat	gcctcttgcc	atctcatctt	caccctgcct	12420
ggcttccctt	gcttgttcca	ggattgtttc	ataaagaggg	atgtggttgg	tctttaaccc	12480
tatgaatgct	ggctgaggat	gcctgcgga	cctgtagtga	agctttcagg	ggctgctcgg	12540
gttctggctg	gtaggtgaac	actgtccatc	ttgccggctg	ggacacagtg	actctgggta	12600
gttgtgtaag	agagggggccc	ttggcagaca	aacaggttct	tctctgttgg	tgggccagcc	12660
agcaggtcag	tgggaagggt	aaaggatcat	gggtttggga	gaaactgggt	gaggagtca	12720
gccccatccc	ccgtaaagct	cctgggaagc	acttctctac	tggggcagcc	cctgatacca	12780
gggcactcat	taaccctctg	ggtgccaggg	aaagggcagg	aggtgagtgc	tgggaggcag	12840
ctgagggtcaa	cttcttttga	acttccacgt	ggtattttact	cagagcaatt	ggtgccagag	12900
gctcagggcc	ctggagtata	aagcagaatg	tctgctctct	gtgccagac	gtgagcaggt	12960
gagcagctgg	ggcagaggga	tgggggtcac	agtccctaagg	gagggcattg	caggtggcct	13020
caggggagag	cctgggggtg	cccctaagac	gtcctcttgg	aacattttgg	cagagttgcc	13080
tcttcgcccc	cattatggct	cagtttttcc	accatgaaat	gggagggagg	gagacaggtg	13140
ggcaggggag	aggtggtaga	agtggcctag	agaactgttc	ctggggtctg	ggacctttgc	13200
gaaggggtta	gagcaccacg	ctccctgcta	tgtgactgag	gtagcaagag	cacgccctct	13260
tcccatgttt	gaggaagaca	ccctagcctc	cttgactcac	ctaggtcagt	cctcttgagc	13320
cccaacagct	ctgtgctccc	cagcccaagg	aaggggtaac	aggatttcgg	gcagttgccc	13380
ctgcagaggg	cccctgggca	agtcccctgc	gccatgtccc	ttcgtctcct	tcttccccta	13440
accaggcctc	cctccacctg	tcttctcaga	gcaggtaatg	gcaagcatgg	ctgccgtgct	13500
cacctgggct	ctggctcttc	tttcagggtg	gtctccgacc	ctgacttcaa	cgtgggggtg	13560
tgggtggagg	ctggccagag	ggccctgtcc	accctggggg	aggagagccc	aggccctgat	13620
tacctagtcc	ctctccacag	cgttttcggc	caccagggca	cggaaaggct	tctgggacta	13680
cttcagccag	accagcgggg	acaaaggcag	ggtggagcag	atccatcagc	agaagatggc	13740
tgcgagagcc	gcgtgagtgc	ccaggggaag	gggtgtaggc	gaagggagga	gacagctggg	13800
ccatgccatg	atgacctgcc	tctgctgcct	caacctctgt	ggccgctgct	gggacagagg	13860
aaaggagcgg	tgtagctctt	gtctgcagat	ccgggccatc	ctgggctctt	tagcgccctc	13920
tgcctgcagc	ccccgccttg	acaactccgt	agctgttgcc	cccttgctca	ctgaggcgcg	13980
ggacctggga	tcaatcggga	ggacgcccgc	tgcagtcctc	agaatcaaag	gatgatgtgg	14040
cgcctctatg	ttctcttggg	gagtgttgta	ggtctggatt	tgtatgggca	atgtgtttgt	14100
gcttcgtgog	tgaattgtta	ctggccaggg	ctaggacaag	agccctcgac	cctggggcca	14160
acgccctgog	tccttggttc	ccccagagga	tcagtgcgog	atgacttggg	gacaaaggag	14220
atgatggggg	ctagcagctc	gacggcctgg	atatctgtcc	ccttctccag	gacctgaaa	14280
gacagccttg	agcaagacct	caacaatatg	aacaagttcc	tggaaaagct	gaggcctctg	14340
agtgggagcg	aggctcctcg	gctcccacag	gaccgggtgg	gcatgcggcg	gcagctgcag	14400
gaggagttag	aggaggtgaa	ggctcgcttc	cagccctaca	tggcagaggg	gcacgagctg	14460
gtgggctgga	atttgagggg	cttgccggcag	caactgaagc	cctacacgat	ggatctgatg	14520
gagcaggttg	ccctgcgcgt	gcaggagctg	caggagcagt	tgcgcgtggg	gggggaagac	14580
accaaggccc	agttgctggg	gggcgtggac	gaggcttggg	ctttgctgca	gggactgcag	14640
agcgcgctgg	tgcaccacac	cggccgcttc	aaagagctct	tccaccata	cgcagagagc	14700
ctggtgagcg	gcacgaggcg	ccacgtgcag	gagctgcacc	gcagtgtggc	tccgcacgcc	14760
cccgcagagc	ccgcgcgcct	cagtcgctgc	gtgcagggtg	tctcccgaa	gctcacgctc	14820
aaggccaagg	ccctgcacgc	acgcattccag	cagaacctgg	accagctgcg	cgaagagctc	14880
agcagagcct	ttgcaggcac	tgggactgag	gaaggggccc	gcccggaccc	ccagatgctc	14940
tccgaggagg	tgcgccagcg	acttcaggct	ttccgccagg	acacctacct	gcagatagct	15000
gccttcactc	gcgccatcga	ccaggagact	gaggaggtcc	agcagcagct	ggcgccacct	15060
ccaccaggcc	acagtgccct	cgcgccagag	tttcaacaaa	cagacagtgg	caaggttctg	15120
agcaagctgc	aggcccgctc	ggatgcacct	tgggaagaca	tactcacag	ccttcatgac	15180
cagggccaca	gccatctggg	ggaccctga	ggatctacct	gcccaggccc	attcccagct	15240
ycttgtctgg	ggagccttgg	ctctgagcct	ctagcatggt	tcagtccctg	aaagtggcct	15300
gttgggtgga	gggtggaagg	tcctgtgcag	gacagggagg	ccaccaaagg	ggctgctgtc	15360
tcctgcata	ccagcctcct	gcgactcccc	aatctggatg	cattacattc	accaggcttt	15420
gcaaaccag	cctcccagtg	ctcatttggg	aatgctcatg	agttactcca	ttcaagggtg	15480
agggagtagg	gagggagagg	caccatgcat	gtgggtgatt	atctgcaagc	ctgtttgccg	15540

tgatgctgga	agcctgtgcc	actacatcct	ggagtttggc	tctagtcact	tctggctgcc	15600
tgggtggccac	tgctacagct	ggtccacaga	gaggagcact	tgtctcccca	gggctgccat	15660
ggcagctatc	aggggaatag	aagggagaaa	gagaatatca	tggggagAAC	atgtgatgg	15720
gtgtgaatat	ccctgctggc	tctgatgctg	gtgggtacga	aaggtgtggg	ctgtgatagg	15780
agagggcaga	gcccattgtt	cctgacatag	ctctacacct	aaataagggg	ctgaaccctc	15840
ccaactgtgg	gagctcctta	aaccctctgg	ggagcatact	gtgtgctctc	cccatctcca	15900
gcccctccct	ctgggttccc	aagttgaagc	ctagacttct	ggctcaaagt	aaatagatgt	15960
ttatgataga	agtttgcctg	gcgtgactct	catttggacc	atgtctgaaa	gcagtggcct	16020
caccactatc	cccaaagcac	acccatcacc	cactccattc	ccttgctgct	ctttctcatc	16080
cacccactcc	cagtccaggt	ctgtcaaagg	gggtctggct	gggctctgct	tcagggatcc	16140
tggctagaca	acggctgtct	gtcacacctg	gcaggagggc	ctgggttacg	ggcccttcct	16200
ctgcacctgc	actgttcact	agcctgtctc	cccacaggac	actgtgcatg	gaatgcaggc	16260
tgtgtctgga	agagctgtgg	ccctgggtgga	cctaagattc	ctgaggtggg	ctgcctcctt	16320
tgttctctgct	gttctagagt	ttgaatggcc	tctttttatg	ccggactctc	ttctggggac	16380
tccctcact	caggggcacc	aatgtccct	atagatcccc	tgggaactga	aactggggtg	16440
tgggtggagga	cgtggaaagg	gtaaacacag	ctccttgtct	ttggacttcc	ctgtccggcc	16500
ccctttcctc	ccagctcagc	ctactgtccc	cgggttctca	gcacctgcct	gctccccaac	16560
cccatagcac	agaccccaca	catatgtagg	ctcatcatgc	ctgcaggctg	gtcttccctg	16620
acaccgtgga	ttttgacaat	gttggcaaca	gaactgggtt	gtggacccag	cacctggaga	16680
gaggaagtgc	tagaaaggta	gaaataataa	aaggtgtttt	tgttgttgtt	aggaaactgg	16740
aaaagcatag	gtcaagggtc	atgatgggga	tgaggaggta	ggagtgaaaa	tgagggtctg	16800
gtacttgagg	ctgggatttg	ggaaggtagt	gatgaggaca	gaataggagg	tgggaagaac	16860
agaaagggac	agagggattc	agggattgtg	agagagggga	agaggctgag	ccacccggag	16920
gggagaccta	gcacgcaagc	agtatgtggc	ccaacactgg	aaccaagcag	cccggtccg	16980
ggcgacatt	ctcagggtt	cctcagggtt	aagtccagcc	ccttgtcgtc	aaggctcttg	17040
tagaccgacg	tagggaccaa	tagaaccctg	tgcggtggag	ctattgtgaa	ggagcaaaaa	17100
agtgccctgg	ttctaagagg	acgtcttagg	ggaagtgcag	gctgagttga	ggtggatccg	17160
gctggcgatg	taagggttcga	gccatataaa	cccgggaacc	gggagccctt	gacgacattg	17220
ttccccgagt	gcccggagtc	tgcggctttt	tttgggttgg	tggcagctgg	cgggaagtgc	17280
gggagagggg	tggggccgcg	agagcggcgg	aagtaggaag	ccgaggtctg	aattgcgcgt	17340
ggtggccatg	gcgccagcgg	gggctgtgga	accagggtcc	ccgggggctg	cogtcgcccc	17400
gtcgcccgcc	ccggccccgc	cgctgcccc	tgatcacctg	ttccggccca	tcagcgccga	17460
ggacgaggag	cagcagccca	ccgagatcga	gtcgctatgc	atgaactgtt	actgcaatgt	17520
gaggcggggg	cgcgcccgcg	agcggcggtt	gggtagggtt	tgtgccggga	cgagccgggg	17580
gtcagaccca	gccaggtggg	cccggccggg	gaccccgagg	agcggccgga	gatagtaggg	17640
cggggaaagg	gagtttctt	gatttttttc	cttagctact	ttctacttca	ccagggtcag	17700
acgcgcctcc	tgctcaccaa	gattcccttc	ttcagagaaa	taatagttag	ctccttttcc	17760
tgcgagcact	gtggctggaa	caacacggag	atccagtcgg	caggcaggat	ccaggaccag	17820
ggagtgcgct	acactttgtc	tgtcagggct	ctggaggtga	gaggacctca	gagcagggtac	17880
ctcagtatcc	tagagagaga	ttcgggtactg	gggtcagagc	tctggtccag	gcggtcggat	17940
cttaataaaa	tccccctatg	tctctagacc	ttagtttctt	ttgtaaaatg	gtactggtgt	18000
tgtcatcagc	tcaagtgaga	taagatttgt	gaaaatgctt	tgtaaatgtt	gtctgagggg	18060
atgaaatgag	cagtagttgt	tatgaatagt	attctcacca	tttggacagc	ctggctcaca	18120
ccacctgtac	tattcgaaaag	gagcagtcctg	gacctgtggg	agtggcgaga	gggagagaca	18180
gctgggctgc	ggtctgatgg	aaggggacgg	tctggttatt	acttgaggag	aagctgttct	18240
gcagtctctt	tgtactgaac	gtattctttt	cttcccagga	catgaacaga	gaagtgggtga	18300
agactgactc	tgctgccaca	aggattcctg	agctagattt	tgaaattcct	gccttttagcc	18360
agaaaggagg	taagtttaag	atcagagtat	ttgggctggt	cgcagttagc	tagaatctta	18420
ccctctttct	tgcaaaaccc	cctgggtcca	ggtctagtgg	tttgtgtatg	ggttctacca	18480
tgtaatcatt	gtaattctta	ttagtttaac	atgagtggaa	agcttaggta	aaacagctcg	18540
agatggtaga	aagtaatggt	aataccatag	tgtgtttatt	gtagaatttt	agcatcacta	18600
ttatcagaca	cttgatgaac	cttgacctg	gccttctcat	tttacagatg	aggaaattaa	18660
gacccagaga	gttcaagtga	attgcccagg	gtcatacagg	gacttgatag	cagagctgag	18720
gctaagtcac	acttgtcttt	tgttcttgtt	cacaagctct	gacctgtgtt	gaaggattga	18780
tcacccgtgc	tatctctggc	ctggagcagg	accagcctgc	acgaagggtg	agctgggggt	18840
ttctgattgt	agcagctcaa	ggaataattg	cttatataga	gtgtcccatg	tgtctgaaga	18900
gtctctgact	aagtgttgga	aacttgctgg	gtaagcatat	ggtggtgctg	gagctgctag	18960

aatgttgcat	atgtttataat	tattgtcttt	tccacttccc	tccctcagta	tatattcagg	19020
cctcatcaga	caatataaca	ttacctctga	agagcctttc	ctaatacccct	tgggtttatct	19080
gtgtttcctg	agtattccac	tgcattcttat	atattattatg	acagaagtaa	tatattatag	19140
ctgcatcttt	agttatttgt	ctccttaatt	ggttgaggag	tcccatgaga	ggactgatat	19200
atatactatt	atatctctaa	cgtggcatga	gtgcctgggc	taaattggtg	aatgagtgag	19260
aaaaatgagg	ctcacctgtc	accacccgtc	aacttcaggc	ttgtttgcta	catctcattg	19320
tgaagcctga	gtcactctgt	ttccactcac	actgagatag	gtggtgactt	cctaattggaa	19380
gtaacatggg	catgacaagg	ggcagggcat	aaggtacacc	accagggctg	atgctttact	19440
ctctgttcat	ggcaggcaaa	caaagatgct	acagctgaaa	gaattgatga	gttcattgtc	19500
aaactgaagg	agctaaagca	agtagcctcc	cctttcactc	tggtgagtat	tgagaggctg	19560
gagttgccct	tgattagggg	aggagggacc	attaagactg	ctgggatttt	ccactgtgat	19620
gcctgcgtgg	tctgatagta	ggtgatgtag	gattgtttat	gattttcttt	tgcagtgaact	19680
ctctcttctc	ccattttgtta	gatcattgat	gatccctcag	ggaacagttt	tgtggaaaac	19740
ccacatgctc	ctcagaaaaga	tgatgccttg	gtgatcacac	actacaaccg	gacccgacag	19800
caggaagaga	tgctggggct	tcaagtaagt	ggactgaagg	atccagaaga	atgctctgga	19860
attatcgcgc	actctggatt	gcttgaggct	agtggaaactt	attttgctgc	tgctgctctg	19920
tgtgccctat	ctcagcttgt	ttgtgcttct	catcttgctt	atgtccagga	cttgggtaaa	19980
cttcacagaa	aggatggcag	tggtgtgat	cctatcttaa	gtcctgttct	tcctttgggt	20040
ggggctttac	tttgtgggtt	ctctaactga	tgaggtggca	cctgacataa	ctgatgaggt	20100
ggcacctgag	cattttctccc	actccagggc	aggggtgttg	ggacactgag	gtataacctgc	20160
caacttgcca	cctgcatctt	tgctatttta	ggaagaagca	ccagcagaga	agccagaaga	20220
ggaagatctc	agaaatgaag	tgagtcacat	tggtactctg	tgaggaagga	gcagagtgtg	20280
gggctgagac	tgatgctgtt	cagcatctgt	cttccttgct	accaacatag	atgaccacta	20340
gcataccaac	tgagtgtctt	tagcctgaac	atcccactctg	ggagggctca	ccctttgtcc	20400
tcattgtttg	ttccagggtgc	tccagttcag	cacaaactgc	ccagaatgca	atgcccccg	20460
tcagaccaac	atgaagctag	tacgtatctt	ttgccaaagca	ggttggttgc	tcttcactctg	20520
actcaggcat	gaagattata	atcaggctgg	gagcatccct	ttcaaggaaa	acacatgctt	20580
tatacccagt	gataaggaag	atattatctt	tgattagact	gtgtaccttg	ggttttgtgt	20640
tcaaagagaa	aattaggcca	tggtcactag	gctgtgtgtg	tgtgacctga	gccatgcctt	20700
caaattgtgtg	aacagggtat	gccattgggt	gggaacttgc	cctcttctgg	aggactctgt	20760
gggctgcctc	ttgtgaatat	ttcctgcagt	tctgggacca	gcataatgtt	gtgtgggtgt	20820
tggtctttgt	tttccccaga	tggtggtctt	gttcgcctgg	aagtagattt	ccttaactcc	20880
gtttttccaga	aatccctcac	tttaaggagg	ttatcatcat	ggctaccaac	tgcgagaact	20940
gtgggcatcg	gaccaatgag	gtgggtgggc	gccattattt	gggaagaaga	ctagcttaag	21000
ggtaaccccc	ttttaactat	cattcttctt	aagtacttca	gtactcgggg	gcagggggtg	21060
tagagtagct	tggttctttt	tcttaggtct	agtgcagggt	gatgagccct	tgaaggaaatg	21120
ggaattagcc	tagagaagaa	aagttagaga	ttctataact	tgtttaagac	atattaaagg	21180
ttgatgatat	ggaagagaga	agtcttttga	cccactcctc	agaggtgtgg	aagttcaggg	21240
aggcagactt	tgacttcaca	atgaagaact	caatagagct	gtctgaaaat	agaatgagct	21300
gccttagaga	attataaatt	cccttcccct	gagtgtatct	gagtataagc	taattaaatt	21360
ctttaaccag	aatattataa	aggagaccca	cacattggat	gcagtggatg	aaaggactgc	21420
aataaatgct	taaaagtctc	tttcaacccc	aaaagtcttt	tttttttttt	ttttttttaa	21480
gggaaattca	gagtttattg	gcaatttggt	ataagttttg	gcacgttacc	aggggtgggc	21540
actgttctctg	gccagctctt	ggtgtttttg	gtttgggcga	ctgctgttta	gaaggctctt	21600
tctttggtag	ctattaatga	ccctaactga	ttggatgtcc	aagcctacac	tccaggctctc	21660
ctgggtacca	agtgaggctc	aggtcttctc	tctgttctc	ctgactgtta	tcgatgcagg	21720
tgaaatctgg	aggagcagta	gaacccttgg	gcaccaggat	caccctccac	atcacagatg	21780
cctcagatat	gaccagagac	ctcctcaagg	taacagctctg	cctgggaaag	tcactgttgt	21840
cctcataagt	tagataaact	gtctctatct	aggggaagtt	gtctttttaga	aataatgttc	21900
agggacatga	ggtatctcct	acttccctgg	ctttgaggac	ccctgagcag	agggagttaa	21960
tctaagattg	gaattgcagg	tttagaaggt	gaccctgtta	gctctttctg	atgacctggt	22020
agcttttttg	cctccagtgt	ctatctgggt	cctcttctct	gtctgtcccc	tagtgacagg	22080
atacctgaca	gctcgaagct	atgactgagt	ttccctttat	taagttggat	ctattcccgt	22140
ggttcagatg	gacaggagtg	agtctcaagc	tttaacaagg	gagtcagaga	aaactgagac	22200
agctgccctt	gtccgcagtc	tatcactgct	ggtattaatt	gggcaggagg	cctctgggtg	22260
gctttctttg	cttctgactt	aaagcttaaa	ctgacctctc	atttcacagt	ctgagacttg	22320
cagtggtgaa	atcccagagc	tagaatttga	actgggaatg	gcagtcctcg	ggggcaagtt	22380

caccacactg	gaagggctgc	tgaaagacat	ccgggaactg	gtgagtcact	tgagtagtgt	22440
gtaaaccacc	tttgagcaat	ttggctgtgt	gaagagggac	tggaagactt	cagacatcct	22500
aattttcggg	gctggtaact	gtgggtttct	ttgccttaaa	gctggtttta	gagacttaaa	22560
tattactttg	gatgggtgaag	acaagtttat	gggaaatgtt	gaatggaaat	tccaggccta	22620
actttgggac	tttatagtta	ttttgtggtc	ttggacaagt	catttatttt	actgtaaagt	22680
taggggatga	gggtccttct	agcacctaaa	acttcccaac	ataaaaaaca	tacatgtatg	22740
ggttgactta	gccccaaatat	ttatctcctt	gatgaattat	ttcacttgat	tctctgttgg	22800
gcatttttgta	tttgtaaatt	gtactttttc	tttgcatctt	ttctccaaat	tagtatcaga	22860
gatcatattc	taagaacatg	tttcgatttt	gttttacatt	gccagttttg	ttatcttggc	22920
acattatccc	atagactcct	aggagtgaact	gccttgggtca	gaaaggtggg	gtgggctaaa	22980
tggaaccaca	gtttccctga	cagggcaccc	actgtcacc	cctgcctagt	ttatggtcag	23040
gcctaacaaa	tataaagcca	gtattcacat	agtttggatt	atcatttatt	gcaggtgacc	23100
aaaaatcctt	tcacactggg	cgacagttcc	aatcctggac	agacggagag	actacaggag	23160
tttagccaga	agatggacca	ggtaagaggt	cactggccag	tcagtactta	gaatcctggg	23220
gctccagtga	acaggaggct	gcatgctcat	gtcttggcac	tttttgaaca	tctaaccatc	23280
atgttgggga	ttcttcttct	ggttttcttt	tctttttttt	ttttttggag	acagagtctc	23340
gttctgtttg	ccaggctgga	gtgcagtggc	gtgatctcgg	ctcactgcaa	cctctgcctc	23400
ccgggttcac	gcgattctgc	tgccctcagcc	tcccagtagt	ctgggattac	aggcgcacac	23460
caccacgcct	ggctaatttt	ttgtattttt	agtagagaca	gggtttcact	atgttggcca	23520
gactggtctc	gaactcctga	cctcgtgatc	tgccctgctg	ggcctcccaa	agtgtctggga	23580
ttacaggcgt	gagccaccgc	acctggccct	cttctggttt	tctatatctc	atgtcttctt	23640
tcttgttttt	ctcccttatt	ttgttagagc	atcttctcca	gtagcttcct	gggaaaaagt	23700
gcatgggaaa	taaaatttct	gggaccttcc	acatctgaac	atgtctttat	tctgttatca	23760
cactagagtg	attattggct	gggaatacga	ttctaggata	gaaataattt	tttatcagaa	23820
tttccaagac	tgcaactatg	tcttccagtt	tggtaaagac	attgtactat	agtcttccac	23880
tttggctatt	gagaagtctg	aagccatttg	attcctggct	ttttatatgt	gacctagtct	23940
tgtgatctct	tcgtttcctt	tgatgtgaaa	tttcaggggt	tgcccttggtg	tgggtcagtt	24000
ttcatccact	gggctaagca	cttggtagat	gtattttttc	agtctggaaa	actcatgtgg	24060
ttcagttcta	ggaagctttc	atgaattatt	ctattgaaga	ttatcttttt	tctgattttt	24120
tttttctgtt	ctttctgaaa	actcctgggt	tttagatatt	agacttactt	gtctggtctt	24180
ctataattta	ctcttttttt	ggctctattt	ttggtttctt	ggtttttttg	ttcttctttg	24240
ggagattccc	tcaactttat	tttccaaccc	ttcaattgag	gttttcattt	ccactaaaac	24300
ttttattttc	caaggagctt	tttaaaaaat	agcatcctgt	cttaaggatg	tagtattttt	24360
tcttcttgag	gattattatt	ttttaaattt	tttcagcatg	cagtttatat	agcacttatt	24420
gatactgatg	ttggatcttt	tttgacattt	tattctcctt	gcaccccttt	tttccccatt	24480
tgatttccca	tctttcagtg	tttaaggcct	tgctcagatg	tctgataatc	attgattgtc	24540
ttcttacaag	tagcgggcta	aagacctgag	taggggggtga	gccttgttga	catgggggctt	24600
attacagggg	aatttaactt	agctgttttg	ctgaggtggc	ctccaatgcc	agaattgtta	24660
ggtctttcct	cttgggctag	tcagacaaag	aggctatgcc	tgccagacaa	gaaccaaccc	24720
aattttatatt	acagaatcct	ccaaagtttt	aagaattggg	gaaattaggt	agctctgaaa	24780
gtagagggga	aaggatctaa	aataaggact	gttagaaaag	ccaacatcag	caagctgtgg	24840
accagggggg	gctggccag	ttgaaggtag	agggaaaagga	ctcaagaaca	aggaggttaa	24900
atgactgtgg	ctgctccatt	tcctggcctg	agggtaaaga	cttggctggc	agtgttctga	24960
gagctgtggg	aagggggctg	gggtgtgtat	gtattctgtt	tcccataagc	ttacattcat	25020
ttaaacctact	tgttcttgat	tcctttccct	ctaccttcaa	ctggggccagc	accccttagt	25080
ccacagcttg	ctgatgttgg	cttttctaac	agtccttatt	ttagaacctt	tcccctctac	25140
tttcagagct	acctaatttc	accaattctt	aaaacttttg	gggattctgt	aatataaatt	25200
gggttgggtc	ttgtctggca	ggcatagcct	ctttttttta	aaaatttttc	tttactttca	25260
tttttttcat	ttcttttttt	atttatatat	atatttatta	tacttaagtt	ctagggtaca	25320
gtgacacaac	gtgcaggttt	gttacatatg	tatacatgtg	ccatgttggg	gtgctgtacc	25380
cattaactag	tcatttacat	taggtatata	tcctaattgt	atccctcccc	cctccccoga	25440
catagocctc	ttttaccagg	ggttatgtaa	aatttacttg	ctgtgttctc	tctctccttt	25500
agatcatcga	aggtaacatg	aaggccact	ttattatgga	tgatccagca	ggaaacagtt	25560
acttgcagg	atagtagacc	ttccctgatg	tttcatagag	atacattttc	tgatcttctt	25620
tgaatatgta	tcattttcct	agaaactgaa	agacttgatt	ctaaatggac	tgctttttac	25680
caaggaggca	gaagttagaa	gatacataag	ggagaaaaga	gggggggtgtg	ggaggggatt	25740
tttttttttaa	gtgtatgtaa	agaaggaaaa	aaaaaggata	ctctgaggcc	cctttttttt	25800

ctgtagtcaa	gctcttgtcc	cagttctgga	gttttcattt	tgcaaatctg	attatggatt	25860
gaggagaaat	ggtaccttgt	ccggaggcca	agataggaaa	ctgataggct	ttaagttgac	25920
tgaggagaga	gtctgggtgat	tgatgtacct	ttaccattta	ttggatactt	accatgggtc	25980
aggcaaaact	cttctaagtt	ctttccaaga	ttaagaccat	ttgtcatact	tttcataaga	26040
aggtgcagat	ataacaaaat	aggtggattg	ttccctgatt	ctggggctgg	ggtcttctac	26100
ccctggccca	tgtgggctct	gttgctaccc	actagttcag	tctagccatg	ggaaattgga	26160
ggccaataaa	aagaaaaaaa	cccaaaactc	attctgttct	tgggaagggtg	ggaattggaa	26220
gctgcctgca	gagaggggga	gtggcacagc	ggcactgatt	gtctctcctt	gaccttgacg	26280
aatgtgtatg	cgcctgaaga	tgatcctgag	atgaagggtg	agcgttacaa	gcgcaccttt	26340
gacccaaatg	aggagctagg	gctcaatgac	atgaagacag	agggttatga	ggcaggcctg	26400
gctccgcaac	ggtagcagtg	ggtggctcaa	gggccagcct	ccagcgctgc	tctttctgta	26460
ggttattttat	tagtatttga	tgaaggcgaa	ggctgggagt	gtctttccca	ccagcccttg	26520
cccattggtg	ggaggacatc	tggctctgagt	cagagatctg	tgcacacttt	ctaaacagct	26580
tgtgatgcaa	gtgtgagcct	attgtgttac	ttgaccttat	tttggaagtt	ttgaattggc	26640
ctaggaggaa	acccagaaat	gaaccagggg	tatgtcatca	cttttttcat	atcaagtctt	26700
cacctctcct	ccacataatg	ctctatcctc	taaggttgga	actctgaagt	tggagaagggt	26760
ggaataaaagt	tacaccttga	gtttgttgtt	ggttttgagt	atataaaaata	ctgactttga	26820
acaggaaaag	agtctcctga	ggggagaccg	agtcacgac	aagtgaagga	gttaccattg	26880
aaatgatgac	tttcaaacag	cactggcctc	tgtattgacc	ctatccttgt	ttgatatcat	26940
gctgttagaa	ttcagcctcc	taaagaaaat	tttcccggtg	atctactgta	atttggggat	27000
tgcagctggc	atttaattca	ttccttcagc	agatgcttgc	ttatctactt	tatgccaaagc	27060
acaccacaga	acagaggaca	aaataaatct	ctttcatgga	acttgaagtc	tagtggggaa	27120
aaatgacaat	aaacagatga	ggaaaacagt	acatcggatg	gtgattagt	tcatggagga	27180
atgtaaagca	gggaatgggg	ctgggttgtg	caaggaaatg	gggagtaggg	aagatcttct	27240
gaacaagaag	gtgataattt	gacatttggg	caaagctgag	gaggaggtca	gggagtgagc	27300
tgtgtgggta	tctgggggaa	gagatttccct	ggcagaggga	actgcaaagt	ctagagctgt	27360
gagggttagag	ccagtggggg	tacctgatca	gttagcccta	ctctcagtta	gaaatgttga	27420
aacacattca	tccagagaga	aaggaggctc	tctgcagttc	ttctgaaagt	taaggaccag	27480
tgaacactct	gctgcttggg	ccctggactt	cccagccagt	gttctttgca	ctgtagtctc	27540
ctgcctctca	taaacaaaag	gtgactcctg	tgggtgcagac	tgcagggtat	ttgttcaata	27600
aagaccagtt	cattgattaa	gatgttatca	caaaccttat	tgctttgtgt	tgcaaaacttt	27660
tttttttttt	tttttggtag	agacagagtc	tgcgctgttt	gcccaggctg	gagtgcagtg	27720
gtgtgatctt	ggcttattgc	aacctttgcc	tcccgggttt	aagcaattct	gcctcagcct	27780
cccgagttagc	ggggactaca	ggcgcacgcc	gccacacca	gctaatttct	tttgtatttt	27840
agtagagacg	gggtttcacc	gtgttgccca	ggctgggtctc	gaactcctga	gctcaggcaa	27900
tccgccagcc	ttggcctccc	aaagtgtctag	gattacaggc	gtgagctacc	gcgtccggct	27960
gtgttgcaaa	cttaactctg	aagaatgagt	tagagatgat	ttagcaatca	gacatctact	28020
ctcgttgtct	tgttaacta	ctctcaaagg	tcacaagtga	ttttccactt	ggaaagtgtt	28080
atctatttct	gtcacatttg	atagtggacc	atctcttctt	aaccttctt	ttggctctcg	28140
agatactgta	cccttgggtt	tcccttcact	ttgaatat	cttatttggg	cactttgcct	28200
cctccccctct	tactaaattt	gtttctgaga	gttctgcttt	cagacatctc	tccatatcag	28260
attcttttggc	atcttactat	catgtgggac	taacttccat	acctgtatct	ctaatctctg	28320
taagttaggg	cgagagtaag	gtgtttggag	actcagggtta	gcaaagtact	cattcaaact	28380
ataaagcttc	agtacttttg	gcaaacttct	cacaggcaac	tattctaccc	taagagatta	28440
tctctagata	tgtttccagc	tgacttggga	atctaagttt	accagacaac	cctctgatct	28500
atcatttgggt	ctcttaagta	gacttcccca	tagtgtaggt	gtgctctgtt	aagataaaact	28560
gcagtatcag	gttcattttt	cattgtgaag	gaaaaaaaat	ggcactctgg	cttattactg	28620
aatctcttgt	gagtttgggt	ggtgtgaggc	aatctcccag	aatccacca	gttccttagga	28680
aatgatgacc	tgagtttctg	aacttgaaga	ctgaggacca	ggtgccagac	tgggataacc	28740
cagctaatagt	acttccctgc	ctttgatgac	aaggcattct	tcagtttcat	acccttctct	28800
tgaattatct	ttcagctcct	ttctcatttc	ataaagtgtg	tcaggatggg	agcttacata	28860
tagttaactg	agtcttggct	cacagacccc	agcatatgac	acatggttaa	taaaatctgt	28920
taaaatcctc	catcatagat	taaaccctat	taggacacta	gggataacat	ctataggtaa	28980
aaagataggg	aaaggggtct	gctttaaggc	cagggtaggt	gagtcaaagt	gccagggaaca	29040
tgtggattca	gtttcacagc	catgagtaac	atttaagtgg	aaaaggtttg	tgattgtgtt	29100
aaaaaggaa	agtgggttcat	gcatgagggc	acgcctccta	ctttcatggg	tcaagtatgt	29160
gaaatgcagc	catgttcgggt	cattagacgt	gtggacgaac	atacaggtag	gtactgaatg	29220

tacatctgtg	tcatgatgag	tggaggaggg	gaggtgagtg	ttgggagcaa	gtatgaaggg	29280
cagttgactt	ggccaactga	aaactttaat	gatggcaaca	ctttcattct	aacatcagta	29340
tatttccttc	tttgtacacc	tgtggtatgt	gcctgatgca	cactgcagaa	aatgggtgtct	29400
ctgcttacat	ttagggcagt	ggtggctaag	actacttggc	tttattccta	ttaaaaaatg	29460
ttttttacac	acttcttttt	aaggcaaatg	gcagtgtttc	caactgtgga	gagaaaaagc	29520
tgtttatttt	gtgctgtcac	ctcagtttag	tattggcact	tccaatgctt	gttttcctag	29580
tctgtaaaat	ggggataatt	aggataaaca	aaattatccc	cattttacag	gtgacaaaac	29640
agcctcagag	aggttacttc	cagaaggaag	cagagctttt	tttttttttt	tttttttttt	29700
tttttttttg	agacggagtc	tcactctgtt	gccagactg	gagtgcagtg	gcgtgatctt	29760
ggctcaccac	aacctctgcc	tcccaggttc	aagcgattct	cttgccctcag	ccttctgagt	29820
agctgggact	acaggtgcac	gccaccatgc	ctggctaatt	tttttttttt	tttttttttt	29880
ggagacagtc	ttgctctgtc	acccaggatg	gagtgcagtg	gtgcatctt	ggctcactgc	29940
agccttgcc	cctgggttca	agcaattctc	ctgcctcagc	ctcctgagta	gctgggatta	30000
cagacgcca	ccactgcacc	cagctaattt	ttgtattttt	agtagagatg	gggtttcacc	30060
atgttggtca	ggctgggtctc	aaacccctga	cctcgtgatc	cacctgcctt	ggcctcccaa	30120
agtgcagggg	ttacaggcgt	gagccaccgt	gcctggccag	aagtagagct	tctaagaggc	30180
agggtgcaaa	cccatgccag	tcagactctg	aaacctgagg	tctgaatatt	ttaagctcag	30240
ctccacaatt	actgtatttg	ttctattaga	tacaactgca	gagagaggcc	aaagctcaga	30300
gcaggccatt	ggcagggcat	ctgatcctgc	ttaaactgcc	tgcagcacag	ggtggagaca	30360
ccttgggcctt	gtcaggctaa	gggactgggg	taggatgggt	agcagtggaa	ttgaagacaa	30420
agaaaacaaa	tgggcagaag	atgggtgggt	ggaagttcag	agggctatcc	tggcagtgtt	30480
cactggagca	gaagtgtgag	gctttctgaa	tgcctgctga	caccagggtg	gggcagggtc	30540
gtgtagtgtg	agatgcacca	aattggacga	gaagccaagg	caggcttgtg	tatggggtac	30600
cctggggccc	tccgcctagt	gaagccctat	cttctcagcc	cagcgtcctc	gtctcacaag	30660
ccctcagagc	cccagcctgc	tttcttttct	gggctgtgc	tgaaccccc	tcaacatggc	30720
ccactgggta	aaaattcatg	cttcaagact	gatccccaag	cctgttttgt	attatataag	30780
taaagaattt	tttaaacact	tatccccaga	taatgtgtat	ttatttataa	agtatagccc	30840
tgtctgcttg	actaatatat	taaaaaagtg	acctttttga	ctcttggtcc	aagaaactat	30900
tgtttgcaact	tttgtgtagt	tgtgtatagc	atcctgcaaa	ttctgtcaga	agtctgtgat	30960
ttcagtaaca	ctaaaacttc	tctctcaaat	ggtacaagtt	ttcagtttta	agacaagttc	31020
tgggaatcta	atgtacaaca	tgttgactat	agctaataat	tctgtattgt	ttacttgaag	31080
tttgctaaga	caaatttgct	taagtgtccc	ccccccgaac	tactacataa	attagtgaag	31140
gatgttttac	ttaatltgat	tttggtaatc	attacacaat	gtataattat	atccagtcac	31200
cacattgtac	accttgaata	tatataattt	tttgtcaaat	aataaagctg	ggaagaaaac	31260
gataaaaactg	acaatctaac	atatatgatg	aggtaaaaag	atctgggtatt	tcaagaaatt	31320
tggatgacct	cttgaccccc	acttcgctag	cctctactcc	ctagagtcac	gttctgacta	31380
tgtgaagttg	agcaacttcc	ttaatcttgc	cacgcttcag	ttcttatctg	taaaaatatga	31440
taatgaaacg	atlttgagaat	tgtgagggtt	aaatgagata	attcaggtaa	agctctaaac	31500
cccctgcaaa	gaataaagtc	ttttctttcc	ccccaaaact	tgagtgttag	aattcattct	31560
ctctggtttc	tctcttttac	tatgctaaaa	aatgatccag	gtccgtcctt	ctcattggca	31620
agattgtttt	acagtttctc	tcaagagata	actgggggct	acttgtaata	gaacactaga	31680
agagttacac	aggctttaga	aactacgttt	ttcatagtaa	ttatgttggt	ttgcacttcc	31740
tggcttccct	tcttggaagg	taggtacctg	gaagccctag	ggagcagatt	ccccccactt	31800
aaagataactt	ataaaaataa	cgaacatagt	tccgatgacc	atgtgcccaa	caccgctctg	31860
cgcacttcac	acagtaatat	catctcagcc	tgtgaccgtt	ccgagtttag	tgccgggatt	31920
ctccctgttt	tgtgataact	tgcccagggt	cgtacagcta	gccagctatg	gaaccagtat	31980
tcaaactcgg	ctacgtgtga	gcccgtggcc	ctccactttc	ttgctcgtgc	tctggagttt	32040
aagcggccga	tggggggcgg	gtccttttgg	tcagggttgtg	gectcataga	acagcgcttg	32100
ctgcggttgg	atggatgggt	gggtgggtgg	gtgagtgaat	gaagagaaga	aacctgggtg	32160
cgtcgtccca	gggctgtgga	gcgccccgaa	ggtgcgcacg	tccttggtta	gcctgcgagc	32220
gcgtccccgt	ggcgcacact	gccagccgcg	cgattcttag	cactctccgc	cacttccggc	32280
cgtggccccg	ccctgtcggg	tggctggcgt	ccgttacgcg	ttgaggcatt	ttgtccccag	32340
cgcgcacccg	tctctctgcc	ccgcgcgctg	ccatggcggc	agctccgcgc	ctttccaagg	32400
ccgagtatct	gaagcgttac	ttgtccgggg	cagatgccgg	cgtcgaccgg	ggatctgagt	32460
ccggtgcgaa	gcgtgcgaaa	aagcgccgga	agcctggcgg	ggccggcggc	aaggggtgag	32520
ttggtaccgg	ccggggcggg	gcctgcgacg	tctagccacc	ccttcccaac	tccgccctcg	32580
gccgccccgc	agttccttcc	ctcttgccgg	gtctctaggg	ttctccgcgc	acccctgctc	32640

atgctcaggg	ccccactcac	atcgcttgag	gccccccgcc	ttgcctctgc	cgccccgctt	32700
acatctcgag	cctctgagca	gtagcgtcag	tgcgttaaag	ccggggtgta	actttgatta	32760
ctcttttccc	gccttggtag	acttccgtcc	tctcccatag	agaatgaata	ttgtgcctcg	32820
agaataatgg	agcggattca	aagcctctgt	gcttgatct	ttagggcccg	gtacctgcct	32880
gtggggattc	ccagatccca	aggacttggt	tctgaatcag	agacctttga	tcacctcctg	32940
ttactcttag	taatagtcct	aacgtgagaa	gctaacattt	atatagttat	acttttcttg	33000
ccaggcacca	ttataagaaa	tttaaacata	tataagttta	tttaagcctc	accacactac	33060
catgaagtgg	gtattatttt	catatgggac	aactttgtgg	cccagtgtag	tgggccctac	33120
caaatcgttt	tccaccacaga	accacagaat	gtgacattta	gaaatagggt	ctttggagat	33180
gtaatcagtt	aagatgaggt	catacttgat	taagggtgggt	gccaaatcca	agatgactgt	33240
ttgcctttta	aaaagagggga	agtatggata	cagacacagc	aacaaaggaa	aaacgaccat	33300
gtctagatga	aggctgagat	tggattggat	ttatgttgcc	aaaagccaag	gtatgcttgg	33360
ggctaccaga	agctgggaga	ggcaaggaaa	gattctctgc	tagagacttt	ccaggggagga	33420
tggccttgca	gacacctgga	tttcagattg	ctagcttcca	gaactgcgag	agagtttctg	33480
ttgttttatg	ccacgcaatt	tgtggtactt	tgttacagta	accctaaggc	actgagatac	33540
ccagtgaagt	cacattgttc	taaagaacta	gtccaagttc	ttttctgggt	tgggtgcttg	33600
cttattattg	tcttctgtct	tctgcctcgc	tgacttgtgt	ggatcctttg	gaggcagtgc	33660
catgtgatga	aagtagcttg	agtgttggag	cagcactggg	cagagttcga	atcctagctg	33720
tgccacttta	taggtgtgtg	acccttgggc	aagggtgttc	atctcactga	gctgcagttt	33780
ccttatcttt	aaaatgagaa	taataataat	aatggtttta	ttaagtgggt	gttgtgatta	33840
gagggattgc	attaagtgac	cctggctttt	tgaataactt	cacatcatgg	cagtcattgt	33900
tattatttgg	gctcaactat	atagttttatc	cacgtaacaa	acattttattg	aatatttcgt	33960
attccagtta	ctgtagggtg	ttgaggatgc	ctctgtgaac	aaaaaaaaaca	tagtccctgt	34020
tcttgtggag	cttatagatt	aatgggaata	caggctttta	gcaactaatt	acacaactaa	34080
tcgatataat	ttctttatga	taaatgcaat	gaaagtattc	caagagtttt	taacaaggggt	34140
tcttagtctt	gagtgagtgt	gggatggtga	gggaattggg	tgaagcagtc	aagaaaagtt	34200
tgccaaagga	agttaaattt	gtgttaggac	ctgaagaatg	aggaagagtt	tcctggaatg	34260
agaaagagtt	tcctagcact	ttgggaggcc	aaggcgggtg	gattgcttgc	atctaggagt	34320
ttgagaccag	tctgggcaac	atggtgaaac	cctgtttcta	caaaaaatac	aaaaaagtag	34380
tcaggcacag	tggcacatgc	ctgtagtccc	agctacttgg	gagactgagt	agggagaata	34440
acttaacccc	gggaagtcaa	ggctgcaggg	agccatgatg	gtgtccctgc	actccagcct	34500
gggcagcagt	gtgagaccct	gtctcaaaaa	agaaaaagac	tagggccggg	cgcggtggct	34560
cacgcctata	atcccagcac	tttgggaggc	caaggcgggc	ggatcacgag	gtcaggagat	34620
cgagaccatc	ctgactaaca	cggtgaaacc	ccgtctctac	taaaaataca	aaaaattagc	34680
caggcgtggc	agtggtcgoc	tgtagtccca	gctactcagg	aggctgaggc	aggagaatgg	34740
tgtgaacccg	ggaggcagag	cttgcaatga	gctgagatcg	tgccactgca	ctccagcctg	34800
ggcaacagag	cgagactccg	tctcaaaaaa	aaaaaaaaaag	aaaaagattg	aaaagagtag	34860
atcaggcgaga	gggaaggaac	tgcataatgtg	aaaactgatg	tgataggaac	ttggctcctt	34920
tctaagcacc	aaaggatgac	caggggaggtg	ttcaaccaag	gaagtagcag	taggagatga	34980
agttgacctt	gtagacaaaag	actggaccat	gcaggatcct	gtagaatttt	gaactttatt	35040
ttaaaaccaa	tagataaatg	tttttatgct	ggtatcctag	aatgactctt	tttgatcttc	35100
ttatttctcat	ttagaatgcg	gattgtggat	gatgatgtga	gctggacagc	tatctccaca	35160
accaaactag	aaaaggaggga	agaggaagat	gatggagatt	tgcctgtgggt	atgtatcttt	35220
ggggctgtca	ggattttgaa	atgaagcaag	cttctcaatt	tccttttttt	tttttttttt	35280
gagatggagt	ctcgcctctgt	cacccaagct	ggagtgcaat	ggcatgatct	tggctcactg	35340
caacctccgc	ctcccggggt	cagatgattc	tcctgcctca	gcctcctgag	tagctgggat	35400
tacaggcacc	cgccatcatg	cctggctaatt	tttttttttt	taatttttgt	agaaatgggg	35460
tttcaccatg	ttggccaggc	tggctcttgaa	ctcatgacct	cagggtgatec	accacacctg	35520
gcctcccaaa	gtgctgggat	tacaggcgtg	agccattgtg	ccaggccaag	cttctcaaatt	35580
ttatttttcc	agcttaggggt	agatttgtag	gggggttagt	tgagaacaga	aaagaggtga	35640
cagtttccaa	agagctgttt	aaaatagttt	tctttgctga	tgccataaca	ccaactgttc	35700
tctttatgga	gggtccatca	gcctagaaat	gagatggatc	acagagagag	gacttctcga	35760
catcagtgtt	agagtaatga	tgagacttag	ctgtggttca	ttttgttgga	atcttcctta	35820
aaaacaatgc	tgaggttcag	ttatagggaa	cttttttattt	gctccttttt	tcagtgcctt	35880
aactaagctt	tcaaatgtga	tattcttgcc	taagtactgg	agatatgtag	attaatagaa	35940
catagctgta	tttttagagat	tataccctag	aatgaaaaaac	tgaatttcag	ataaatttca	36000
acagtatggg	aaatgttggg	gatgtttcac	atacgtacca	agtaccatta	gagcccgggg	36060

aggtagcata	ctttgtattc	tgttgggaga	tatcctgaaa	gatgtaaata	ctgagttttg	36120
aagggttaagt	aagagccagg	tggacaaaat	cataggcaaa	tgacctccca	gtgggttcag	36180
aaaccattgc	tgagaatttc	tgagaaacaa	agtggaaagg	agagctgtag	ataggtgaa	36240
ttccactaaa	gttggtaaag	atggattcca	gtgagtattt	aatattaatt	cccagcaaaa	36300
ttcttttttt	tttttttttt	ttgagacgga	gtctcacctg	gttgcccagg	cttgagtgtg	36360
gtgggtatgat	ctcggctcac	tgcaagctct	gcctcctggg	ttcacaccat	tctcctgcct	36420
cagcctcctg	agtagctggg	actacagggg	cccaccaaca	cgcccggcta	atTTTTgtg	36480
tttttttttg	tatttttagt	agagacaggg	tttcatcatg	ttagccaggt	tggctctgat	36540
ctcctgacct	cgtgatccgc	ccacctcggc	ctcctgaagg	gctgggatta	catgtgtgag	36600
ccactgcacc	tggccaattc	ccagcaaaat	tctaaaatag	attattttaa	agagggcttg	36660
ctagtaatta	gaagggaat	agtgatctta	gggagccaat	ttagttttgg	tcagaagaag	36720
taaatattaa	caatgtttgt	tgtttttttt	taattttata	aaagcaatgc	atattttatta	36780
cagaatattt	gggaattaaa	aaaagtttaa	agttttttaa	agaataaaca	cttgcattgt	36840
accatccaaa	gataactgct	aatacttggg	tgcatatctc	ttcaggtttt	tctcttttag	36900
gattatacac	gcttgtattt	tatttttttg	aacataattg	ggatcatact	gtacataggg	36960
ttttggagtc	tactcctctg	ctaaataata	tgttgtggat	actctggtaa	gaccttaaaa	37020
tattctttga	gtgtatgatt	tttaacgggt	atgtagtagt	tcaatatata	tattttatct	37080
gttctgttac	tggatacatg	gattgtttcc	acttataaaa	tatcatacat	cgttgtacat	37140
aaatcatttg	tagaaatcag	tttatttctt	tattcccata	aaatgaaatg	agtggatcaa	37200
agggtatggt	tgcgttttag	tatatccca	tgttgctttc	caaaagggtg	taccaattta	37260
cactccact	agaggtgatg	agaatgccag	tttgcctacg	tcgtcaatat	tagagcacta	37320
ttattattat	tattattatt	attattatta	tttttgagac	agggtcttgc	tctgttgccc	37380
agggtgaaat	acagtgggtg	gatcatgccc	cattgtagcc	tctaccttcc	aggtgcaagc	37440
aatcctccta	ccttagtctt	gcacgtagct	ggtaccacag	gtgcgcacct	ccatgcctgg	37500
ctaatttttg	gtattttttg	tagagatgag	gtctctgtgt	tgcccagtct	ggtcttgacc	37560
tcttgggctc	aagtgatcct	cctgcctagg	cctcctaaag	tgttgggatt	acaggtgtta	37620
gccacatgcc	ccaccaatat	tgaaggatta	ttacaaaaac	aaaaccaata	gcaaacctat	37680
gctgatttag	caagtgaagta	atggtatcca	gtttcttttt	tttttttttt	ttttttgggt	37740
gagtctcact	ctgttgccca	ggctggagtg	cagtggcgtg	atctcggatc	actgcaagct	37800
ccgcctcccg	ggttcacgcc	attctcctgc	ctcagcctcc	cgagtagctg	ggactacagg	37860
cacctgccac	catgcctggc	taattttttg	tatttttagt	agagatgaag	tttactgtg	37920
ttagccagga	tgatcttgat	ctcctaactt	catgatctgc	ctgcctcggc	ctcccaaagt	37980
gctgggatta	cagacgtgag	ccaccgtgcc	tggcccagtt	tctttgaaca	ctagtgaat	38040
gaatcatttt	ttatatgggt	attaggctta	tgttgtgggt	gtattttatc	atttgccctt	38100
tcacttagtt	cataattgtt	tttatttttt	tttttttttg	agacatatct	tcacactgtc	38160
accaacgctg	tagtgacgtg	gctcaatctt	ggctcactgc	agcctctgcc	tcccaggttc	38220
aagtgaacct	cctgcctcag	cctcccaaatt	agctgggatt	acaggcgctt	gccaccatgc	38280
ccagctaatt	tttgtgtttt	tggtagagac	gggttttcac	cgtgttgctt	aggctgggtc	38340
tgaactcctg	gggtcaagca	atccaccgcg	ctcagcctcc	caaagtgcta	ggattacagg	38400
aatgagccac	cgcacctggc	cattttcttt	tataatattg	tcttgctttt	atgatggccc	38460
aaaaacctaa	acaaaggagg	ctttagtgcc	actgctctct	gcattgggta	aaacagatct	38520
tgattactga	attcattttt	gtaactgcaa	gatcaccacc	accaccagta	ataatggtaa	38580
aacgattatg	atgattacga	tagcagtggc	agcacaggaa	taattaatag	gtgtcattta	38640
ttgggcattt	atcatgtacc	aagcatggct	aagcttacgt	gaattatctc	attcaatcct	38700
tatagcaatc	ctttgaatcc	cactttttaca	aatgaggaaa	ttgaggctta	gaataattta	38760
ccaaagggtta	cacaaatgct	aagtggccga	gctgggggtt	agatcttaat	tcactctgcc	38820
cgaacacctg	gcttttaacg	ctcagtgaga	gatctcaaaa	ctgggttata	tgaagaatga	38880
tggtaggatt	ttggggagaag	tagagggcta	ttatgacctg	gattttaaatt	ccagttctgc	38940
cacttggttag	cttgtgacat	tgagaaagtt	actgaacttc	tccgaatcag	tttgctattc	39000
agtagtgtgg	agcctttctt	tacaggatta	ttgtgagaat	cgagttagat	tatatgagta	39060
aaccacaaaa	caacgtacct	tgcacatagt	tgctactctg	taactaggat	ttattatgcc	39120
agcaatcttg	aaagtttgtc	atgtggactt	acatcacagg	tcagaactag	aatgaattca	39180
aagaagttat	aggaaggcag	atacggtaact	agtaaaacta	agaactttct	aacatttttg	39240
aaaaatgcag	tggactgtgt	tgtaaagata	tgagttcctt	gtcaggaagg	gattgggcga	39300
gtgaccactt	attaggaata	ctatagagaa	gattctgatt	tgttcagaag	tttagaagat	39360
atgaaatgtg	gttttagctc	ttaaagatta	atgattctgt	gtacatctca	gtggctcttt	39420
ttggttgtat	tcaagaaaac	ctatcactgt	gactacctac	aacaagaaag	gattcataga	39480

aaoccaaagt	cottgattag	tgctaggcat	gatgggggga	gccacctatg	tttccactgt	39540
taatgtagaa	gtaaaagtgt	aaaaggaatt	tagttgttag	tttacaagtg	gctgttgtgt	39600
acctagcagg	ttaataaaaa	ggtttgtaat	gaaaaaaatt	aacctttgca	gggtaattga	39660
ttaattagag	aaggatctac	aattaaacca	atacagtgac	aatcagatgt	ttatggagca	39720
aacataactg	aagaccctta	cttacttctt	catgaccatt	ttggatata	gtacgccctt	39780
gtgttaggaa	tcggaatggt	tgtaacttca	ggttcttgag	acagtgcctc	ttggctggat	39840
cctgtggatt	tcctaagata	ggaaatcttt	actctcacag	gtggcagagt	ttgtggatga	39900
gcgccagaa	gaggtaaagc	agatggaggc	ctttcgttcc	agtgccaaat	ggaagcttct	39960
gggaggtgag	ttccaacaat	agataaatct	aaatttccat	tagtagggga	gatctttttt	40020
cctttttctat	actttttctt	agaggaatgc	atagtttgtt	ttagcatgtc	attgatcctg	40080
aaaaataaag	caggaaaaag	gaagttggac	ttcttcagag	gtagtaagac	ataggaactt	40140
atagaccaga	tattcctctt	tctcttata	tttggcatta	ggattactga	ggttgggtgac	40200
taatttggag	gcctttgagc	acccatttct	ctttgactca	gaataggaga	gcacttgggtg	40260
tataggcaag	actttgggag	gagtttacia	gaaacaggag	cagaatttgg	ggacttttagc	40320
taccactatc	ctcttccaca	atgaagcaac	tcatttctgg	gggttcaagg	accagtgtat	40380
tttgttctgt	ttgtgttagt	aaatttctct	cttcttttcc	taagtattgg	tgttttatag	40440
tgcattaccc	tcactttgcc	cactttggac	tcttccaaag	ctaataatct	taatttaact	40500
ctctttaaaa	aaatttgagt	ccttgagaat	tggataaaaa	gcatttgttt	gtcacatctg	40560
tttgagcata	gactagtctt	atttgccatg	atattccctt	atctagcaca	aggagctacc	40620
tttaataaat	attttagtaa	ttgtttaatt	gctagtaggt	atttgatttt	tgtagcctaa	40680
tcagaattct	tttccaaaga	gaatcttttg	gtctccatgt	ctgtttgtct	aggaagacac	40740
acagacacac	acatacacac	ggtgcctttt	cttgtgtatc	tgaatgttta	gaaggtcagt	40800
cacacacaca	cacagtcaca	ctcacactca	ctcactcctt	ttcttctgcc	ttgctttcac	40860
tcccccatcc	caatttggtt	ttggaagtac	gcttaccaat	ctctgaccct	tgcttccctc	40920
agatttactg	ttaggcccc	cacagacatc	atacttttct	ctgtggagtg	gattccaatc	40980
agatagggct	gttccccaaa	gtaaaggagt	tgacttgggt	taattcatcc	atttaacaag	41040
tattcatcag	ttcctaccca	gctttttatt	gtatttgggc	tgtggagctc	aatgacaaga	41100
aatagaggta	gaggaagaac	tggattttga	aactgttcca	gttgctatag	atatttcatt	41160
ctgtggtgcc	tttgaatatg	gaaggtctca	aactatgtat	tttaacttta	aagctttaca	41220
tatttttaaag	attgcacatg	gactctggag	tcaaataagag	ctggatttaa	atattcctct	41280
accacttatt	agcaatatga	ctttggcaag	ttaatctttc	tgagtatcaa	cttccctcatc	41340
tataaatgaa	atgacagtat	ttatgtccta	ggcttgttgt	gagaattgaa	tcaggtaatc	41400
tctatgaaac	actggcacac	agtaggtgat	tggttaattac	ttgctccttt	cttttttgtg	41460
gtgatttttc	ccctctctaa	gaaagagcac	agtgaattgg	attaaatagt	taacagcatt	41520
ttattttgat	attcaccggt	ttagtcaatt	tacctattga	aagaagagtg	agtacaaact	41580
ataaagtatc	taggcaaaat	atcagtagga	gccactagct	gggaactctg	cacaaatgag	41640
gttttagaaa	gaacattgga	ctgggagtta	gaagacttgg	attctagcct	gtgtcttcat	41700
tttaggagct	gtgaccttag	gtaagaaatc	actcagctcc	tcagctgaaa	acagaggctg	41760
tggcctctgt	tttcatgctg	taatacaagg	gtacctgccc	tgcttacctt	aaaggggtata	41820
atatgaaaaa	tgtgctgaaa	atgctttgca	aatttatgac	ttggtaggcg	gaggggttat	41880
tcttaagata	ttcatgagtg	gtgggttgct	gcccctaagc	aagaaaactg	tgagggcctt	41940
ttgggctttc	tgagcagttc	tgaggtatgt	gctactggag	catcttttga	aactgggtgt	42000
gggggtggac	agagggacag	agcattttgt	ggaatctgac	tctttgttat	ttgtgtttag	42060
gccacaacga	agacctaccc	tcaaacagac	attttcgtca	cgataccccg	gattcatctc	42120
ctaggagggg	ccgtcatggt	accccgatc	catctcctag	gaaggaccgt	catgacaccc	42180
cggatccatc	tcctaggagg	gcccgtcatg	acacccerga	tccttctccc	ctcagagggg	42240
ctcgtcatga	ctcagacaca	tctcctccca	ggaggatccg	tcagtactcc	tcagacactt	42300
cacccccaa	gagggcccgt	catgattctc	cagatccttc	tcccccaagg	aggcctcagc	42360
ataattcttc	aggtgcattc	cctaggagag	tccgtcatga	ttcaccagat	ccctctcctc	42420
ctaggcgagc	ccgtcatggt	tcctcagata	tctcttcccc	cagaagggtc	cataacaact	42480
cccctgacac	atctaggagg	actcttggtc	cttcagacac	acagcaactc	agaagggcc	42540
gtcatgactc	ccctgatttg	gctcctaatt	tcacttattc	cctgccaga	accaaaagt	42600
gtaaagcccc	agaaagagcc	tctagcaaga	cttctccaca	ttggaaggag	tcaggagcct	42660
cccatttgtc	attcccaaag	aacagcaa	atgagtatga	ccctgacatc	tctcctccac	42720
gaaaaaagca	agcaaaatcc	catttttgag	acaagaagca	gcttgattcc	aaaggtgagc	42780
atatgactgt	ccatgagagg	gatgtatgta	tccttgggag	ctttcttttg	gccgttttagt	42840
tgatttatta	ggtataagaa	tggaaattct	ttgggaaagt	tttgaaaagt	gagaggctgg	42900

gtttgggaga	ggtgaacaat	tatgggtggca	gggaggaag	ttttcatatg	tctttttatg	42960
tgctcgctcc	accccatata	aaagtacaat	ttatttggtg	cagaagcttt	ggaatgtaca	43020
gaagtatata	aagataaaat	gtgacacaaa	attctgtcat	tcagaggtaa	ttattgtag	43080
tggtgtggcc	agggtcatct	tagtcttttt	tggtttgcat	tttttatata	gtagagctct	43140
ggctgtgtag	aacatttgta	ttgcatgtgc	aatcttgcc	gctgtccttt	cttaacgtag	43200
tcttctcag	gccataaaac	atctttatgt	tagtataatt	tttaaatagtg	tttaactaca	43260
aatttaacca	ttttccta	aatgaatgtt	tttggttatt	tctaagtttt	ttcttctgta	43320
attctataat	gaacatcctt	gtacataaac	tggtgtcccc	attttggtt	atttccttat	43380
ctacttctag	atagatttcc	tcgaaattca	actacttcta	tataagtttc	ctagaaagct	43440
gagaagttga	tgtactgggt	cagaagatgt	gggcgtttta	aagactgtcg	atacatattg	43500
cagaatgcc	tttgggaggt	gacttgtgat	gcttatacag	tcgctagaac	ttaggcctgt	43560
gcagtgaat	tttttactcc	ctcttttgtt	cctaggaact	attttaattt	taaaattaaa	43620
gtactttgtt	atccttttagt	ccaaggatat	cagactatat	tccaggtatt	tctgactttt	43680
gccacactat	ggagagctga	ctacaagtta	ttttgtcttt	ccatgggtgg	ggttactgac	43740
atagaggagt	gtgtggagat	tttacacacc	agttacagtc	agtggctact	tgggaataga	43800
atgccatatt	ctacctgttg	gtcttaaaaag	ttgtttctga	ctttgctctt	ctcctgtgcc	43860
atccatactt	atgttttaggt	taatgataat	tcttcatagg	aaaactaaat	aaatatgtac	43920
attagcttgg	taagttatct	ttttagattc	ttccaagggg	attaaagaac	tctttggcca	43980
ggcattggtg	ctcaagccta	taatcccagc	actttggagg	ccgaggtggg	cagatcacct	44040
caggtcagga	gttcaagacc	agcctggcca	acatagcgaa	acccatctc	tactaaaaac	44100
acaaaaatta	gctgggcgtg	gtggcacaca	cctgtaattc	cagctacttg	ggaggctgag	44160
gcacaataat	tgcttgaacc	caggaggcgg	aggttgagct	gagctgagat	catgccactg	44220
cactccagcc	tgagactgtc	tcaaaaaaaa	aaaaataata	ataatgtaag	gaattcttta	44280
atttctaggt	tcttctccca	gccataggag	atttcatgta	agttcttcac	ctaggggaca	44340
tcagagtcac	acagattctt	tgctcctatc	cagggtgactg	ccagaaagca	actgattcag	44400
acctttcttc	tccacggcat	aaacaaagtc	cagggcacca	ggattctgat	tcagatctgt	44460
cacctccacg	gaatagacct	agacaccgga	gctctgatct	tgacctctct	ccaccaagga	44520
ggagacagag	gaccaaactc	tctgattctg	acctgtcccc	gcctcgaagg	agtcagcctc	44580
ctggaaagaa	ggtcaggatt	ttcaggagcc	atgtccttct	tttcgtgtga	ctcttctctc	44640
tcagctttat	atatgtccca	gagaatcaag	ccaagaagaa	ggatgtagct	ctgagaagtg	44700
tagtaaatct	tagttaaaag	gacctttgga	ggtcttttct	tctgaaggca	aactggctat	44760
aacccatccc	agatggactt	acagatacca	gatttcccaa	gtagcttctg	cgtttatagc	44820
ctcttaattc	tacaatctca	ttttaacagg	tctagaaaaa	cttctatttt	tcttaggaat	44880
aaaccgagga	ctgtaatttg	cagagtgaag	tttggagcac	aagcattgtg	tcaaacggat	44940
cacatacaga	aattctcctt	ctgccactta	ctgtctgtga	gatttgggca	agatgcttaa	45000
tatctctaaa	cctcagtttc	tttatctgta	aattgtggat	aatagtagta	cctactgtgt	45060
aaggttgtta	tgataattaa	gccagtgtaa	gtaaaactct	tagcacagtg	tctgggacaa	45120
agtaagcctc	tagtggttagt	gatttactag	tataaattgg	actataggct	tctgtatcca	45180
gagcttaagg	agaggcactt	aaaatatgaa	accactttta	gaaatcatgt	tgtctgagaa	45240
gtcaatggtt	tgtttttaaat	tcatgataag	gcttgatgaa	ttagccaaaa	aaccccaaaa	45300
tccatatgaa	ccttgagtaa	ttatatgtga	aagaacattg	gtagtagtaa	aggaatctta	45360
tttgtaagtg	gttaagaaac	agaatgatag	agcctgtgat	gtgcattttt	ctccccagtg	45420
cagacttata	aggtaaatct	trtctgtaga	agactctgag	aagactggct	ctggcagggt	45480
agaccagcct	gttctttacc	caggaagtga	gattcttctt	ttttagggaa	aaaagaggct	45540
tctgtttcag	ctggacctct	tggcatttta	tatatccatt	tagttcatgg	acaacttaat	45600
attattccaa	tttcgttgct	gaaggatatc	aagatatact	gtgtgcttca	ttcgtgggct	45660
gatttgctat	cttgatgcta	agtggaaatt	agcaaaaagt	tttcatttgt	tagatcttct	45720
gttattacca	tgaaatatat	ccacaattta	aggatcttag	gtttgcttga	gtttgtactg	45780
taaatggaat	attttatcag	tatgggtctc	taatggaagg	cttagtgctt	tatactggtt	45840
tctgatcaga	tgacctgaga	tagtcttcat	gtgtgcagtt	tataactga	aaagtcagaa	45900
atacaaatgc	gtagccctcc	atttaataata	ttgttagtgt	ttctgcttat	tcttaaaact	45960
gatggttttt	atgatggttt	tcttttatag	tttttgatc	ctatggtaat	tattgagaat	46020
ataaagctag	agtttttaggt	tttaattattg	ctggctatta	gacacaaatg	caactaaactg	46080
tgtaccatg	gaacctactg	tcacatcatc	tcattaatgt	tggatgctcc	cttttccggt	46140
gcataggctg	cacacatgta	ttctggggct	aaaactgggt	tgggtttaac	tgacatacag	46200
cgagaacagc	aggagctcaa	ggaacaggat	caagaaacca	tggcatttga	aggtaaaaat	46260
atgaaagtgc	agagaccaat	ttaggctcat	actgtttttt	ttttttaatt	tagcttattg	46320

tacctgat	tttgaact	taattgct	caaatttc	ctctgggt	atgcattgt	46380
gtaatttct	agtgaatcc	agtgttct	tccttcttg	aaaatgcc	ttcgccagg	46440
cgcggtgg	catgcttga	atcccagca	tttggtagg	cgaggcggt	ggatcagct	46500
aggtctgt	ttcaagacca	gcctggctaa	catgatgaa	ccctgtctc	acaaaaata	46560
caaaaaaaaa	ctagccagg	atgggtgtg	atgcctgta	tcccagctac	tcaggaggct	46620
gagacagg	aatcgcttg	acctgggagg	tggagggtg	agtgaacca	gatcgcgca	46680
ctgcactcc	acctgggcaa	cagagtgaga	ctccatctc	aaaaaaaaa	aaaaaaaaa	46740
aggaaaatg	catttcttgg	gcccagtgcc	aatatgcacc	aagatgttg	taggaactac	46800
tttggtctg	ctgcagaagt	tcttatctag	cattagaatc	ccaagcggt	gatttgatct	46860
cttagaatg	tatttctgat	tttgatcctg	ataatttgagt	ataattttcc	tttgcagctg	46920
aattttcaata	tgctgaaacc	gtatttctgag	ataagtctgg	tcgtaagagg	aatttgaaac	46980
tcgaacgttt	agagcaaagg	aggaaagcag	aaaaggactc	agagagagat	gagctgtatg	47040
cccagtgggg	aaaagggtaa	gggaaccact	gaaagggtaa	acaagatggc	agtgactgga	47100
acaagtcatt	tctctgctct	tctgatcact	cactttctta	ttatgccttc	agagctgtta	47160
tcagtaatgg	gaaatttgg	gtgctgaatc	ttcttcctag	gatattgata	tattccacgc	47220
ttctagtggg	tattctggga	attttaccct	gctcagtatt	tgccctaggg	tactagaaag	47280
aggagattgt	ccaaacttag	cagtatggtc	catctcgtgt	agaagtggaa	atgtcataca	47340
ggatagcaaa	cactcttgg	tcctttttgc	ccaggcttgc	ccagagccgg	caacagcaac	47400
aaaatgtgga	ggatgcaatg	aaagagatgc	aaaagcctct	ggcccgcctat	attgatgacg	47460
aagatctgga	taggatgcta	agagaacagg	aaagagaggg	ggaccctatg	gccaacttca	47520
tcagaagaaga	taaggccaag	gagaacaaga	ataaaaaagg	tgggacttct	gggaatcatc	47580
agctggaggt	gacttgtgaa	gagagaatca	ttaggatgct	gatacatagc	tatatgcaaa	47640
gaaggatttc	ccaaataatt	taaattcatt	gtatttgtga	gttagatttc	aactcaattg	47700
gtctttctat	ataaaaaatt	ttccaggcca	ggcgagtg	ctcatgtttg	taatcctagc	47760
acttcgggag	gccgaggtg	gtggatcacc	ttagagttcg	agaccagcct	ggccaacatg	47820
gtgaaacccc	atctctacta	aaaatacaaa	aaaaaaaaa	aaatagccgg	tcatggtggt	47880
gcacgcctgt	aatcccggt	agttgggagg	ctaaggcacg	agaattgctt	gaaccagga	47940
ggcagaggtt	gcagtgaact	gagatcgtgc	cactgtactc	cagcctgggc	aacagagtga	48000
gactctacta	aaaaaaaaagg	aaaattccac	attgccatcc	agctctgaat	taaaactatg	48060
cattaactga	atactttttt	cttactcctc	tcattagtga	gacctcgcta	cagtggcca	48120
gcacctcctc	ccaacagatt	taatatctgg	cctggatata	gctgggacgg	agtggacagg	48180
taagcctggg	tatttcttac	attttctacc	tgactgtaac	cttcctaac	cactcgtaag	48240
ttgctccaca	ctttatttca	ttctctgctt	taatcacaag	gtgaaaaata	tgcaacttgc	48300
ttgcttcttt	ttctgaggtc	cacaaatcct	atttctcatg	cttggaaacac	tcctccttct	48360
gttttctttt	cataataact	tttaaagctc	tggacaaaca	cctcaggtgg	ttcagataag	48420
acaccctttg	ttttggacat	tggttacttt	taatgatatt	ttgtaagggt	tagaggggtt	48480
gagtgatgag	ttgtagtctg	gagccttcta	cctgatata	ctttaaaatg	tagcctctga	48540
atctttattc	actttatggt	tttaggaggc	agtcactttt	aatgtcttcc	agtcctctac	48600
cccacctcat	ctgtctacct	accaacatct	gtaccacagt	actctaactt	cctgttatga	48660
tggatgaata	tttgcttcca	tccaaagtca	gtttgtatac	tcacatatta	gatcccatct	48720
cctcttgctt	actaaaggac	attgttttag	tatctagcac	aataattctt	aaacttttta	48780
atctcaggac	cctttttacag	tctttttttt	tttgagatgg	agcctcgccc	tgtcgcccag	48840
gctggagtg	agtggcgag	tctcggtcca	ctgcaacctc	tgccctcctg	gttcaagcga	48900
ttctcctgcc	ctagcctccc	gagtagctgg	gattaccggc	gcccgcctgc	acaccagct	48960
aattttttgt	atctttaata	gagacggagt	ttcaccatgt	tgccaggctg	gtctcaaact	49020
cctgacctca	ggtgacccgc	ccacttcagc	ctcccaaagt	gctgggtatta	caggcttaca	49080
ggattacagg	attacagggt	agccaccatg	cccaaccact	cttatttttt	tttgaggcag	49140
agtcttgctc	tggttgctcag	gctggagtg	agtgggtgaa	tctccacttc	ccgggttcaa	49200
gcaattctca	tgttctcagt	gcctgagtag	ctgggattac	aggcatgtgt	caccatatcc	49260
agctaatttt	tgcattttta	gtagagacga	ggttttgcca	cattggccag	gctgggtctg	49320
aattcttggg	ctcatatgat	tgtctgcctc	gattttccaa	agtgtctggg	ttacacgctt	49380
gagccaccgt	gcctggccta	cgctcttaaa	aattactgat	gacctcaaaa	agcttttgtt	49440
gatgtggatt	atatatatgt	atattttacca	cattataaat	taaaactcag	acattttaaaa	49500
agtattttatt	cattcaaaaa	aaaataaact	aattatgtta	acataattac	tgtatatatta	49560
aatgaaaaat	aattacattt	tccaagtga	aaaacagaag	gatggcattg	atttacattt	49620
ttgcaaatct	cattaatgtc	tgacttaata	ataggttaact	tgactctgta	tttgtctgtt	49680
gtgattttgt	cagttgaagt	atagaaagaa	aatttagcct	cacacatagg	tagttagaaa	49740

gagaaggcat	attatatattc	ttaatgttac	acaaaaactc	aacaagtgc	ggtttcttaa	49800
aggtgagcta	tgtggaacct	gaaaccagat	caaagaactt	tccttactgt	tatattaatt	49860
tttttaatac	tttgagtggg	tcttttacct	atgcatgatt	ttataacatc	atgcattggg	49920
catttgtaaa	atattgggtt	gctgagttgt	tcagaccttc	caaagtgtga	catatttcca	49980
ctatacaata	tcagaaaatc	acttttggtt	acatcacttc	cggctcttatc	acaaaactct	50040
ttaaataatg	ggaagttaaa	gagttcacag	tttttcagaa	ttctaattta	cacttgaaag	50100
tttaaagtgt	atcactggca	tttccattgc	ttgagctatt	tccatttaaat	agcttaattt	50160
ctctgctgag	atttcccac	tgttcattat	gagatatttt	cctcttcttg	aaaataattg	50220
tgatatgtaa	ttgggtgctt	gaagtccttc	ctgtctgtta	attgcaacat	tggattcacc	50280
acaggattgg	tttctatatt	ggcagctttt	tcttcagtgt	gtattacatt	ttcctgttta	50340
tttacctgtc	tggtcacttt	tttaaattgt	tactggacat	catgaatgat	atactgtaga	50400
gactttgagt	tctgttacac	tgtattgtca	gttgttttcc	ttcaggtaaa	gctcactttg	50460
tacaatagct	ttttatagat	tccatcagat	tttgtacctt	gagggctctt	catctttgca	50520
tacagtttaa	tttcttactt	tacaatctag	atgctttttg	tttcttttcc	ttgccctgtt	50580
gcattagcta	gcacttcagt	gcagatgttg	aatagaagta	gtgagagcag	acatctttgc	50640
tttgttccta	atctcaggaa	gaaaacattt	agtttttaca	acacatttat	taaatgtgtt	50700
gtagctgtgt	aggttttttg	tagatacctt	ttatggagtt	aaagttgcct	tctattcctg	50760
ttttgctgag	agttttgttt	tcaggaatgt	atgttggttt	ttgttcaaaa	tattttctaa	50820
tttctctttt	ggtttattct	ttgctccatg	ggttattttag	gagtgcatat	attccaaata	50880
tttggaactt	tctagatatt	ttactgctat	ttacttataa	tttaattcca	ttttggtcag	50940
ataatatact	gtaatatatt	gatcttttga	aattttgttg	ccaggcacag	tggctcatgc	51000
ctgtaatccc	aacatttttg	gagcccaagg	cagacggatt	gcttgagcct	aggagtittga	51060
gaccagcctg	ggcaacatgg	caaaaccctg	tctctacaaa	aaaatacaaa	aattagtctg	51120
gcatgggtgg	acacgcctat	agtcaccagt	actgtggagg	ctgaggtggg	aggatcactg	51180
agcccaggga	ggctcgaggt	gcaatgtgct	gtgattgcac	cactgcactc	cagcctggat	51240
gacagagtga	gaccatgtat	caaaaaacaa	taataaaaaat	gaaatttggt	aagggtgtgt	51300
ttatggccca	gtgcatagtc	tatcttctga	atgtttcctt	tgcacttgaa	gagaacgtat	51360
attctgtagc	tatataaggt	agtgttttat	aaaagtcagt	gaggtcaagg	tgttttagatc	51420
ttagatcgcc	tgtattctgg	gttttttgtg	tttgtatttt	tctatcagtt	actatcaatt	51480
gtggattttt	tgttttagct	ggtttatatt	gtttttcaac	tctaaaaatt	ccatttaata	51540
gottacattt	ctctgctgag	atttcccac	tgttcattat	gagacatttt	cctcttcttg	51600
aaaatatatta	tgatatgtaa	ttagtgtctt	gaagtcctgt	ctgctaattg	caacattgga	51660
ttcaccacag	gattggtttc	tattgacagc	tttttcttca	gtgtgtatta	cattttcctg	51720
tttaattacc	tgtctgggtc	cttttataaa	ttgttactac	gcatcatgaa	tgatacactg	51780
tagagacttt	gagttctgtt	acactgtatt	cctcttaagt	gtgttagttt	ttattctagc	51840
aggtagttaa	catagctgaa	ctccaaactg	tctcctttgc	agtggaccgc	agctacaatc	51900
tttgctcagt	tcttttagtt	tctagctgcc	atttttttaa	ttggcctgat	ggtattttct	51960
ctgcacatgt	gtcatttaac	agttagccaa	ggatttgact	agggtttgta	tgtagatttt	52020
gaggttcac	tctttttag	ttccttctct	tccaagattt	ccccctaat	ttcctagctg	52080
ttctgcccac	tttgacttaa	ttcctcaagc	cagtaagcct	gtggcctttct	gccttcatga	52140
gccatgctgt	ttgggaagtt	gccctccagc	aaatctcttt	tcacatatag	acttcatcca	52200
gttcatactt	acttttggtc	actcttccac	accttcaaat	acctattttt	tttgttttgt	52260
ctaggtttta	tagttgctaa	ctgaggatag	gttagtctgt	tcgggttact	ctgcaatgtc	52320
tagaatctgt	ctccccacct	tatatgggcc	taaggcgttg	tcttctgtcc	ctcgggggtg	52380
cgtcaaaaatc	caacagccag	gtgtggtggc	gtgtgtctgt	agtaccagct	atttggggagg	52440
ctgaggcagg	aagatcgctt	gaaccagga	gtttaagtcc	aggctaggca	acatagttag	52500
accccaactc	cagaataaaa	aaatttaagg	ctcttcttcc	tgatattggc	agatatctat	52560
aagttgactg	tagttcctca	tcttggcaga	tatctttagg	gtagctgtgg	ttacaggcta	52620
gcttactagt	tccgtttgca	gttccactga	tgtaggcttt	ttggtagaag	gaggattttt	52680
cagaacactc	atttgccata	catacagcca	gaagtagatc	tttttatagc	acaaccctac	52740
agatgttccc	tgtaccgag	tttttgtttt	ttgtttttta	atttttggac	ccaaaactta	52800
gaattctccc	tgacctagt	ttttttacta	gtattttaatt	tgtcttcatt	tttctcagtt	52860
gcttttttcc	acttcttggt	ctgattttat	cctagatttc	ttctcttatt	tccctttgtc	52920
acccttgctt	tctttttgtt	attcatcttt	catcatcttt	tctagttttg	tctcttttctg	52980
gcctgctgca	agggaaatatt	tccggaacag	atacatagta	tctgttgga	aaaccataa	53040
gataattacc	cagcctctct	taattgaaag	agaaacgggg	ccgggtgcgg	tggctcatgc	53100
ctataatctc	agcacttttg	gaggccgagg	cgggcagatc	acgaggtcag	gagattgaga	53160

ccatcctggc	taacatggtg	aaacctcgtc	tctactaaaa	aaaatacaaa	aaattagctg	53220
ggcgtggtg	cgggcgctg	tagtcccagc	tgctcggaag	gctgaggcag	gagaatggtg	53280
tgaacccggg	aagcggagct	tgcagtgagc	cgagatcgtg	ccactgcact	ccagcctggg	53340
caacagagca	agactccgtc	tcaaaaaaaa	gagaaactga	ggcccaataa	ataagcagtt	53400
tgcctagagt	catgcaattt	ccctgagaaa	gctggaatta	gaactctgcg	ttcctgattc	53460
tctggtccaa	agctctttcc	actgtgagtt	ctcctgcaat	ttgttttctg	attctgctta	53520
ggatttggtg	tttgttattc	atatgtcctt	tgtattatca	tattagtgtg	actctcttaa	53580
gaccttattt	ccaaggtaaa	aaacagtggg	ttccttggtg	ctttggaata	ccatccatgc	53640
ttctaagggt	ggagaggatg	ccattttataa	taagcttccc	ttcttttttt	tttgagacgg	53700
aatttcgctc	ttgttgctca	ggctggagtg	caaaatggca	cgatcttggc	tcactggaac	53760
ctccgcctcc	taggttcaag	caatttctct	gcctcagcct	cccagtagtc	tgggattaca	53820
ggcgtgagca	ccacgcccag	ctaatttttt	tatttttagt	agagacaggg	tttcaccatg	53880
ttggccaggc	tggctctgaa	cttctcatct	caggtgattc	acctgcctcg	gcctcccaaa	53940
gtgctgggat	tacaggcgtg	agccaccatg	tccggccaag	cttcccttct	taaagccctc	54000
tgttactcac	tccactcatc	ccttaaggga	aagtcttagc	atacatgtta	taagtgtgag	54060
cagctaggtg	gtaggtacta	gggattccat	gattaaagag	agatagcccc	tgagcccagg	54120
agctcacttt	caatctagaa	tagaagacag	acagtttcaa	cgctgtttgg	ttagtgttac	54180
tatagaagat	tttcaagatg	ttttgggagc	acaaaggaa	agtaagttga	gccttagggg	54240
gatgtgagtg	atcagggaagt	gcttcctaac	ggatgaaatg	tgggagctga	gttttaaggg	54300
atgttggtta	ccagccaaga	taagaaggaa	aggaaggata	ttaaaggaa	agggtcctat	54360
atgtgcagag	tcataaggct	atgagacacc	atggtgttac	caggtggtgg	gggtccctaa	54420
gtaattttgt	gttgttggat	agcataaagc	gtgagatgga	tgagagaggt	tggcagaccg	54480
tgatcacaga	aggccctgga	agcctatctg	aggagcttgg	tcttcaccct	agaggtaaag	54540
gggagacacg	gaaggattaa	aaacagctct	gcattttaga	tagacaaatc	cattatagca	54600
gtaatatgaa	ggatttgaaa	ggtacaagat	tgggaagtaga	acagatacaa	ggcttttgca	54660
gtagctcagg	ctgaaagtaa	tgagtgtctg	aactacgact	tgcaggcagt	ggtagtaagg	54720
atggttagta	agagaatagg	aagtggggat	gtggtcaggg	gtgagctggg	gggacctgtt	54780
tgctgatttt	gggaagagga	aggaggagtc	attggatttg	gcaacaagga	atgtcagtga	54840
tgacctgaaa	gggctagttc	cgttggtgtg	tgaacaatg	gccaggttct	aatgtattaa	54900
ggagtgaatg	aaaagtgagg	aaacaaatag	tgaatacagg	ctttttaaga	agtttagata	54960
agaagacca	gagaatgcat	ggtaattaaa	gggatttgag	gtccactcac	tacctccttg	55020
aaattcaccc	ctgtattggt	ttccatgaca	ccctactcct	ggttcttttc	tctgatcatt	55080
cttggccaac	tttgcaaaact	cctcttcttc	tgtgcacctc	ttaaagtctt	cccagggctc	55140
catccataat	ttttagctgt	tctcactcta	gtgtctccct	ctggctgatt	cttacctagt	55200
catgttttca	actatgacct	atatgtacat	gatttccaaa	tcagtatttg	catcttggtc	55260
tgggtgattt	agctgtttgt	tggattttct	tattgattta	gacttgagag	atttcaaatg	55320
cattgtattc	aaagctgaac	tcacagctt	ctactgtaag	cctgctccta	ctcttggtct	55380
ctctaacttg	cctcctcctt	ctttgtcctt	gtgtacctaa	tcaattagt	ctgctaatta	55440
gtcttactaa	ttttgcctcc	tgtgtcttct	ctcttccgtc	cctctttatc	attgccttca	55500
tcactctgtg	cctggaccat	tgcagtgatt	ttcctgcccc	agatccccct	cagagtgatc	55560
tctttgaaat	gcagtttaag	ttcttgcttt	aaacccatcg	tttctggatg	aaatctaagc	55620
tttttaccat	ggcctacgca	gctcattatg	cattggcctc	tgcgcctttc	caactttgac	55680
tcattggtgt	tccctttgtc	atacttcagg	ttccagccat	accagtttgc	ctttggtttg	55740
ctgcacatac	caggccactt	cttattttccg	tgcctttggt	cttggtgctc	attctgttct	55800
gaaatgacct	ccagaccctt	tctggccctt	ccatccccag	tgctgtagtt	aacacagagc	55860
ctttactgat	cattcttgcc	caaccctcat	gtcacctttt	tatcatacct	cccccaagct	55920
gattaagata	ccattctgt	ttccatgaca	ccccatgcgt	atttctacca	gagtttatgc	55980
tgttcttttt	atttattttg	ttaaatgtct	ctctcttcca	ctagtctggg	agttcatcag	56040
gacaggtgct	gtgtcatact	cattttcatg	tagtgtctac	catggtacct	agtatataat	56100
gaaaattcaa	taaatgtttg	tgtaatgaat	ggataaaaata	taagatgtgg	acatcagctg	56160
agagagaacc	aggcttttag	agtggcaaac	gtttgaaata	gctgtcagag	tgggggaagg	56220
gtgtgaacaa	ggactaagaa	aaggatgaat	gatataattt	gtccctttga	ttctattgca	56280
tatgccttaa	atattttctt	ttcttttttg	tttctttctt	tctttttttt	tttttttttt	56340
ttgagacaga	gtctctgtca	cccaggctgg	agtgcagtgg	cacgatctcc	gctcactgca	56400
acctctgctg	tccaggttca	agcgattctc	ctgcgtcagc	ctcccgaata	gctggattac	56460
aggcacctgc	cactgcacct	ggctaatttt	tgtattgtta	gtagagacag	ggtttcacca	56520
tattaggcag	gctggtcttg	aatgcctgac	ctcgtgatct	acccgccttg	gcctcccaaa	56580

gtgctgggat	tacaggcgtg	agccgcgctg	cccggccatg	cctaaaaatat	tttcatatga	56640
ctocttactt	cccccccttt	tcattatatt	gtgaactctt	ccctttcttt	tgaacacaaat	56700
gcccccttca	gggttctage	tgaatagtat	gtctcttttg	attgcagatc	caatggattt	56760
gaacagaagc	gctttgccag	gcttgccagc	aagaaggcag	tggaggaact	tgccacaaa	56820
tggagtgttg	aggatatgta	actttcctga	ggctgtgggg	gtggctgggc	tgtggtagt	56880
ggcataggca	gcgagatata	cagtggtaac	agttgtctgt	gctaataatt	ggagcccaca	56940
cagaccagca	acttggtgaa	tgccagtttt	gaccacagaa	gaatattcga	gacctgatgt	57000
ttggactgag	gtacctgtac	ttcttggttg	tgacagcacc	ggctgttgct	ggctttcaga	57060
ggaagcattg	attttctcatt	gaccagggtt	tgttcttggt	agggtttttc	tttttctttt	57120
ttaaataaac	atgtatttat	ttttttaaaa	ttatcttctt	aactgggtat	tctgttttgg	57180
gaagaataca	ggctaataat	gaacctgtgg	ggatttggtg	ggtggtggtt	gaatttttca	57240
ctaatactaga	aagcagtgtg	agtaaaaact	ttcttagtga	tagatccttc	ctctgagaaa	57300
acaggaatta	gtactaaact	agactcagga	atagacacac	agatatttgg	agacatggtg	57360
tatgataaag	atagtgtcac	aagttagtag	ggaagagatg	gataatagt	ctcagaaaaat	57420
tggcttatta	tatggacaaa	aataaagttg	aaccctcata	ccatataaaa	caaaaaatccc	57480
aaagtgatta	aagacctaaa	tgaagataaa	cgtgatatac	agctagtagg	aacaaatggc	57540
aaatgttttt	gtgccttggg	gtaaagataa	atttcttaaa	taagatccca	aagcacaatg	57600
cataagattt	gatagctttg	attactttgt	aattaaaggt	ttctatttag	caaagcatcc	57660
catagtcaaa	gctaaaagat	gatacggatt	aggagaaaaat	atttgcagt	tctaaaaactg	57720
acaaggattg	catatacaag	ggatagaata	tagaaagagc	ttctgcaa	catgaagaaa	57780
aagacagatg	aaataaaaaat	atgcaaaaaat	atgaataggt	aaaatctaaa	gagaaaaacca	57840
gagtggctca	taagtataat	acctcactag	taattacaga	tacgctaatt	aaaacactga	57900
gtttctacct	tacatcttag	tttggcaaaa	ataagcaaga	gactgatctg	atgggggaatc	57960
agaactcatg	gaatattttc	tcttcttttc	ttttctcttt	tcctttcttt	cttttttttt	58020
ttttttttta	aaagacagag	tcttactctg	tcatccaggc	tggagtgcag	tgggtgcctct	58080
gcctcccagg	ttcaagcaat	cctcccacct	cagcctcctg	agtagccagg	actgtaggca	58140
tgcgctacac	aatttttgtt	tttttagtag	agatgggggt	tcaccatgtt	ggccaggctg	58200
atctcgtact	cctgacctca	ggtgatccgc	ccgccttgct	ctcccaaagt	gctgggatta	58260
caggcatgaa	ccactgtgcc	cggtacatg	gaatatttca	gctggtgtat	tcatttttga	58320
gaacaaatga	atgaaactta	ctgaaatcaa	gtaataccta	gggagcgata	ttgcagtttt	58380
taatagtgtg	gctctggagc	tatactgcct	gaatttgaat	cccagctatg	tcgtttgcta	58440
gctgtgtaac	ctttggtaag	ccagttaact	tctctatgcc	ttagtttttt	cgtctgtgaa	58500
atagacataa	tagtacctac	ctcataggtt	tattgtaagc	ttagaacaat	gcctggcaca	58560
cagtagtgct	acagaattat	tagctgttat	tattatcatt	gtcatcatta	tcataagta	58620
gggcagccag	cttccacgat	ggccccta	gatctctgcc	ctctgggata	taaacccttg	58680
tatagtcccc	tcccacaata	aataagggtg	acctgtgtaa	ccaataggat	gtactagaaa	58740
tgtgtgactt	acgaaggtag	gtcataaaag	gtattaaaaat	atctgccttg	tgctatcttg	58800
gatccttgct	ctggaggatg	ccagcttcca	tatcatgagg	acactcaagc	agccctctgg	58860
agaggcccag	gtagagaagc	tctgaggcct	ctcaccaaca	gccagcacca	aattgccttc	58920
tgtaggagt	aatcaccttg	gaagtgcata	cgccagctct	actcaagccc	tcctcaggc	58980
ttgcagccct	gatcgacctc	gtgagagatc	ctgaccacga	acatccagct	ccagattctt	59040
gaaccaaaga	aactctgaga	taataaatgt	ttagtattta	tttatttatt	tgagggtggag	59100
tcttactctg	tttccaggc	tggagtgcag	tgggtgtgatc	ttggctcacc	acaacctctg	59160
cctcccggt	tcaagcaatt	ctcctgcctc	agccaccoga	gtagctggga	ctacagggtgc	59220
ccatgccag	ctaatttttg	tatttttagt	agagggtggg	tttactatg	ttggccaggc	59280
tggcttgaa	ctoctgacct	cgtgatctgc	ccacctcggc	ctcccaaagt	gctgggatta	59340
caggcatgag	ccaactgcgc	tggccatgtt	tagtattttt	taaaaactgc	tttattgaga	59400
tataatttac	atactacaca	attcaccac	ttaaaggtgta	tgattcagt	gcttgtaata	59460
tatcacagag	ttatgcaacc	atcaccacat	ttaattttaa	aacattttta	tcactctgtg	59520
ggtacaagaa	accttgatcc	cattagcagt	cactccccac	tttcccctaa	cttctccagc	59580
cttaggcaaa	cactaatcta	ctttctgcct	gtatagtttg	cccgttctgg	actttcatat	59640
attaataaga	tatgagtga	actgtcatat	aatatttggc	cttttgtgtc	tggctttttg	59700
tgcttagcat	aatgttttca	aggttcatcc	atgttgtaat	atgtatcagc	cctacattcc	59760
tttttaagc	tgaataatat	tcccttggtc	ggatatacca	catttttatt	atgcatcatt	59820
tgatggcat	togagtgtgt	tccactgttt	gggtattatg	aataatgctg	ctgtgaacaa	59880
ttcatgtata	agtttttgta	tggatgtata	ttttcttttt	tatattccta	gggggtggata	59940
tattcctagg	agtgaattg	ctgggtcata	tgttaactcca	tgtttaactt	tttgagggaac	60000

tgccaaactt	attccaaaga	aatgtatgcg	cgttccaatt	tctccacatg	cttgccaaca	60060
cttattat	gtctttttga	ttatagccat	cctgatgggt	gggaggtggt	atatcattat	60120
ggttttgatt	tgcattttcc	tggtggctag	tgatgttgag	catctttata	tatcttttgg	60180
agaaatcttt	attcaaattcc	tttgccatt	tttcatttgg	gttattgggt	atatatacac	60240
atacacaggc	actctcttac	gtaaaggggt	ctttatata	atcttggtta	taagtccttt	60300
actagatata	tgatttgcaa	atacttttct	cattctatgg	gttggtattg	ttttaagctg	60360
ctcaagcatt	tagggaagga	agtttgcatt	tagggtaggt	aagcaacagc	agttacagtt	60420
ataaccataa	caattgttat	acagcaacag	ataactaata	ctttatgtac	atacttcaaa	60480
gtagttccac	tcctggctat	atccttcgga	gaaatttgca	taaatccttg	aggagtagat	60540
acaaggatgt	ttttctatgt	atagtttggg	tggcaagaat	ttggaaaaaa	cttagatgtc	60600
catcactaag	gaaattgata	agtaaaatgt	ggtatatgca	tataatggag	tttttttttt	60660
aagtcaaattg	caagctgtta	ggaatttcgt	gaaatggtag	acttcaagt	aaaaaataag	60720
gaacagtgaa	atttaaagca	aaaatcagct	atataaacac	atgaagtgat	attattttat	60780
aaggaggata	tacaccttaa	tcagtagaat	aggtttgtgg	gagggaaacag	aatgagacta	60840
gaatggagaa	tgaagcgggg	aaagggaagc	aaagagggct	ttgcatggat	gaaagtgtac	60900
gtgtatcatg	aactcaggcc	tgtgataact	cagttctgtg	cacctgaagc	cctaagtgtc	60960
gtccagaag	caaggtctgg	tttcatggaa	ttgacattta	gtaccatata	tagttagggt	61020
agactaaact	gctaaagcag	actccaaata	gacatgtgtt	tccccctgc	tcactcgtgt	61080
aacatgcagg	tcgtttcagg	ttgagaaagt	aggagtgtga	tactctatga	agttgtttag	61140
ggatcaggct	gatgccagct	tcactatggc	ttccaagggt	gtgttgggca	ttaccatttt	61200
agtgtgttga	gcagaacgtg	aaggattgct	tggcagatgt	taccggctag	ctctagaagc	61260
ggcacacact	tctactcata	ttctgttgg	aagaacctag	tcacaaggct	ccctcttaat	61320
gcaaaggagc	cagaggcata	taatatgcat	caggaagaag	ggataaatgg	atgttgttgg	61380
acacataaca	tattatcttt	gccacattat	atacttctca	gacttgtaaa	gaaaggctgt	61440
ccatcccca	gccatttgag	acatacatag	attttttaaat	agttttgaga	cctgaaaatc	61500
ccgaaggag	tatcagttgg	ggtcactacc	aagttaggga	tgtctcttcc	ctaactctgg	61560
ccagtgtttg	tcagagaagg	gcttaggttag	ggagataaaa	tgtaaactgg	aattgtgtcg	61620
agaatcagca	tttatgagat	ggaagtactt	tatttatttt	tacagctcag	atctgtctgt	61680
gttgccagg	ctggagtgt	atggcatgct	tgaacttgt	gggctgtgat	cctaactgtct	61740
cgccttccca	aggtggcaga	ggaggcattc	aactcctagc	tcattgtcac	acccttctgt	61800
cacagctagg	ttttgtttct	gtatgggttc	gggttttaac	ttcatttttg	tgggaccctc	61860
acgtgtttc	ttaggaacac	ctcactctta	agaggctcag	aggctttaga	aatctgaaat	61920
cacttttttt	cccttaacaa	aggaatgtat	tatttattta	tttattcatt	ttttattttt	61980
ttgagaccga	gtctcgtct	gtcgtttagg	ctggagtgtc	gtggcacgat	ctcggctcac	62040
tgcgacctcc	acctcctggg	ttcaagcaat	tctgcctcag	tcttccgagt	agctgagatt	62100
acaggcatgc	gcaggaatgt	attattttatt	tttaagcaga	gattaagggtg	tagggaaagc	62160
agttagattc	tgtttcagggt	gagctctatg	tttagtaggc	attagtgaac	atttaaaaac	62220
tccacccccct	ccaattttctc	tgcctgttaag	tgtgagaaca	cagcacatct	tgtagggcag	62280
agatcgcaag	cctgtccagt	ccctagctga	ctgtcatttc	ctaggctgtc	tactagaggg	62340
cagtgtgata	tgccttttct	agactggcga	aagcggagcc	ctgggtctat	acacacttaa	62400
taatagtagg	ccttagatct	agaacataat	cctgtttcca	atatggaaaa	gattttcaag	62460
agagagacct	agtattttagg	ttttgaccag	aatctccctt	acttgggctt	tggaaacctt	62520
tctctacgtg	gaagattttt	tttttccttt	taatcaaate	tcctttcttg	cgcctcctcc	62580
actttcaagt	ttagacttaa	gaagccatga	gcaatgtgaa	aaacctctga	attgtacatt	62640
ttaaaagggt	gaactttatg	gtatgataat	tatatctgaa	tttaaaaata	ttaaaacagg	62700
ccgggaatgg	tagtgcattc	ctgtaattcc	agctactcaa	gaggtcaagt	gggaggatca	62760
cttaagcaca	ggagttcagg	accagcctgg	acaatgagac	cccatctcaa	tgaaataaat	62820
aaaatttaaa	aaatgtaaaa	acaacaaaaa	agaagaatca	ctgagcagac	actctggctc	62880
agatagaata	taatagtagt	aatagacgta	gtaatagact	ggaatgactc	agtctctcct	62940
ttatctctcc	tgaatgattc	aaacttgatg	gtgttgatct	tggccttata	cagcttcacc	63000
ctttcagaaa	acaagggtac	gtggggcgatc	ttgggtgtag	gttgatactc	aggcagtacc	63060
tgtgaaccca	cccccttggg	aggggacaga	gagcagctcg	ctgaaaaagg	agtcagctct	63120
tccctccgca	tatcacatcc	agcgccctct	gtcagctaaag	gaattacaaa	gtgtgtgact	63180
ttatcctgtc	acacgtaaaa	atgcaatctc	tagtgcttag	taaacagggc	ctgttttctt	63240
tattttcctt	ttagtaggag	aggaagcaat	tgtgcagaga	ggttaacttg	ctcaaaatcg	63300
ctctgagttg	ggaaagagtc	agaattttaa	caacagattc	ctctccctgc	agttgtcacc	63360
cccacctatc	ttcactccag	tagcaaggta	agaggtgagg	gggcagtcga	agggactgtt	63420

tcctgtccag	agcagttcct	accaggggtt	ctcatagcct	ctgcaaggag	gtcctagtgt	63480
acttgaagct	gagttcccca	gtcctggaag	aactgcttgc	tggtagtttc	agtttggaac	63540
tcggctttga	agatcctaac	caagtgtgtt	agaggggcac	gtgcccttga	ctcgtgtgtg	63600
tgtgtgtgtg	tgtgtgtgtg	tgtgtgtgtt	ttgagacagt	ttcattctgt	caccaggt	63660
ggagtaacgt	ggcgcgatct	cagctcactg	taacctctgc	ctcctgggtt	caggcaattc	63720
ttgtgcctca	gcctccccag	tagctgggat	tacagatgtg	cgccaccaca	cccagctgat	63780
ttttgtattt	tcagtagaga	ccgggtttca	ccatgttggg	caggctgggc	tcaaactcct	63840
gatctcaggt	gatccgcccc	ccttgcctcc	caaagtgttg	ggattatagg	cgtgagccac	63900
tgcgcctggc	cccttgtctc	tttttgccag	gggcttggga	ggtggtagac	aagacctctg	63960
ggaagagagg	aatgcctgtc	tgggaaaaaa	attattgttt	taattgctct	ctttcattaa	64020
gtacttactg	tgtgtcaaat	gtgtatgttc	agtgcgtact	tacattacct	ctgttgtcag	64080
ggagagatca	gtctgtgaat	ggttgttagat	tagggagagc	cacatttctg	ggtctcccaa	64140
gaaaaggggg	gttgggatat	cccagcagga	taaactcttc	cttgttttcc	cccatacatc	64200
ctgaagttat	aggaccttca	tgtctgattac	ttgttgacag	agagcttggg	cactttaccc	64260
tggtcaactgt	gtccccatca	aatttgacag	tgtctgttgc	acccaggatg	gccgtctcct	64320
gctttggcca	gtcagctctc	tcctgcagat	taagttagtg	gctgccagcc	gggggcagtt	64380
tccttctgca	catgctggat	atgtttgctg	ccgggggtaa	aaataatgct	gcaggatgga	64440
gccatgccaa	ggggcttcag	gtggtattta	acatctcctg	gggctatttc	ctcctgggct	64500
tccaactgct	gaaaagcagc	tcccttctgc	tgtccccccc	agtgggaagt	tcagtttgtg	64560
gggggttgag	ggggggcgag	ggggggctct	tctgaccttc	ccttcattaa	ttgggcttag	64620
taggggaagt	cagtgggtgt	cagctcctca	gagttagagg	tcataaaaaa	gtagtccatg	64680
ttacctocta	tcaagttact	taacttctct	gagccacagt	ttccttattt	atattttttt	64740
tgtttttttt	tttgatacag	agtctcgctc	ttgtccctca	ggctggagtg	cagtggcgca	64800
atctcagctc	actgcaacct	ccgcctcccg	ggttcaagtg	attctcctgc	ctcagcctcc	64860
tgagttagctg	ggattacagg	ctcctgccac	catgcccggc	taatttttgt	atttttaata	64920
gagacggggg	ttcaccatgt	tggccaggct	ggtctcgaac	tcctgacctc	aggtgatcca	64980
cccaccttgg	cctcccaaag	tgtctgggatt	acaggcgtga	gccactgcac	ctggccacac	65040
aatttcctta	tttgtaaaaa	cagggttaata	cctccctttc	tggttattga	gaggatctga	65100
aataaagtta	tctagcatag	tgtctggcat	gtagttagtg	cttaataaat	agtttcttaa	65160
aatagatact	taaagagcat	gtctgtctgc	tcagtggcac	atgtcccagt	ctctgttgat	65220
ccttctcttg	tcttatctct	ggctttacct	gaacaccagg	gtcacagttc	tctggctgtg	65280
tttgagagac	cagtgtctct	tgtctgggtg	gattgaggga	tgtactattt	gaagaagagt	65340
agtcaaacag	gtggggatct	tctgtccctc	ggagaggggg	tgtctagagg	cgggggagaa	65400
gtgattggct	tgttccagtg	attcttgcct	gtctcatggt	agccttctat	taccatttgc	65460
cccttgtcag	gggagagggt	ggtgtctgtg	gtggtgtcca	gacaggacct	agtttgaatt	65520
tatttgaagc	tggggacata	agaactagtg	gtgggggtgg	ggaggggtga	ggagtctctc	65580
gcatttaaca	tttaagggca	tgtggaattt	caaaagcagt	tttcaccagc	atttcatgtt	65640
tgtttgggtg	tttcttttgc	ccttgagcat	agtgtctggt	gggggcaggg	tggcttatga	65700
tgaagatagt	cagtgggtgga	ctcctgcata	ggtgggtgga	actccatata	ggaaaacaca	65760
ttaccgctgg	gcttagtgcg	gttgctacgg	tgtctgtgtc	tcctaagggg	caggaaaaag	65820
aacagtctct	aggagcaaaa	gaggaagaga	attgagtcag	gggttttgtt	ctctctctgc	65880
ttccaaagct	gcaaggctgt	gtccatgaga	ccttgaggaa	gcccctccag	ttcctcagtg	65940
ggaggggaaga	aggttggccc	tctgcactgg	ctgtgttttg	acagaagtaa	aactcttgac	66000
tcagccttca	aagtccaagg	gtgggatatt	gggagaggat	gagcagcttt	ttggcttgtt	66060
aagaaagtca	cgtttttggc	cagtataaag	tggaggaggc	agagtggggg	gaggtgtgtg	66120
ggagtccctgt	gggatggaga	aagcagtctg	ccaagggccca	tgttacctgt	gggtgatgca	66180
gagaggctgt	ggtcataatg	gggagcagg	agtgaagact	ctgtggggag	ggctgtgttt	66240
gaaccactga	ggtctgagca	gggcccagg	caggagcgtc	cctgtgttct	ctgcctatcc	66300
accctgcatt	aaagggagg	aagcagagag	caggagctct	ggggacagg	aggggagtga	66360
gagggggatg	ccaggtagtg	ggtgactaga	ggactcttat	ccacagtctc	agagcacaca	66420
gagatggctg	aaggatgcc	ctttaagtga	taccttcttg	tcagtctggc	agtagcttct	66480
gtgctcagca	ccatcttctg	tccccagct	tttgaggggg	cacctatgct	ttggcaaatg	66540
gactttgggt	ctgaggtttg	gtgtcttagg	ttgctccaag	cctgcactgg	ttttgggaga	66600
ggaggtagag	gcagctgtgt	ccccacaat	agatgactgt	ggccagcagc	taagggaagg	66660
gtccaaactct	ggatctccac	cgtgtgtgtg	tgtgtgtgtg	tgtgtgtgtg	tgtgtgtgtg	66720
tgtgtgcccc	agctctggcc	ctgcagatgt	ctatcttttc	ctgccctcat	ctctgcttcc	66780
cacacccacc	ccccacccac	gtgcacacac	cagggtgtgt	cctgagacct	gagacagagg	66840

ggtgagctgc	atcttgtcag	ctgtgtagat	ctgccagtag	ctctacagtg	gctccctttc	66900
agaatctgga	atcacaaaat	aagaatctca	gagttggaag	ataccttaaa	gggcttctag	66960
ttattccacc	ttccccatac	caattagtg	gtaagtattt	ccatcagttc	actagctcaa	67020
ctgctgttcc	cctctagtag	catggaaatg	cagtgttaat	tcgattaatc	ctagaatcaa	67080
agttggaaa	agccttcgac	aagagcta	cctcacactc	accccagtg	caggatcccc	67140
tggcaaaaca	catttatgtg	atgtgccgtt	ccactcacat	ttgaacatat	gtattccatt	67200
cctgagcaac	tctagctttt	ttccagttgt	ctttcccat	ggcttcacca	tttgtctgaa	67260
ttatccaact	tggggcttat	ataaaaaaaa	gactaactcc	tttctatctg	acacaatttt	67320
agatgtgttg	ggataaattt	ttctccctgt	gccctacctg	tttcccttcc	tggggcccaca	67380
gcattaagct	aataggagga	gagtccttgca	ttaaaactta	tacaggaaa	gaagcagaca	67440
atcttttaca	taataaggta	gtaggaaatt	aatcttcata	cacggagttt	tatttttgaa	67500
attattatat	tcttatttgt	ataaatgtat	ggaatagagg	tgcaattttg	ttccatgcac	67560
agcttgtgta	gtggtgaatt	cagggctttt	aggatatcca	tcacttgcac	aatgtacata	67620
aggcccatga	agtaatttct	catcattcac	ccccctccca	ccctctcacc	cttccaagtc	67680
tccattgtct	atcattccat	gctcttatgt	ccatgtgtac	acattattat	tattttttga	67740
gacagagtcc	cacttagtca	cccaggctgg	agtgcagtg	cgcgatctca	gctcactgca	67800
ccctccacct	cctgggttca	agcgattctc	ttgcctcagc	ctcccagta	gctgggatta	67860
caagcaaac	ccaccatgcc	tggctaattt	tttttttttt	taatactttt	attagagaca	67920
gggttttgcg	ttgttggcct	ggctggctct	gaactcctga	cctcaggtga	cctacctgcc	67980
tcagcctccc	aaagtgttgg	gattacaggt	atgagccacc	gtgccagggg	tgtacgcatt	68040
atthagcccc	cacttacaag	agaggacatg	caatatatgt	ctttctgtgt	ctgatttggt	68100
ttcacttaag	ataatggctt	ccagttccat	ccatgttgc	gcaaaagacc	atgatttcat	68160
tcttttttta	tggccgaata	gtattccatt	gtgtatatat	actacagttt	ctttatccaa	68220
tcateccattg	atggccactt	agattgaggt	tgattctata	tttttgctat	tgtgaacagt	68280
gctgtgatag	acatatgagc	acacacagaa	ggtttaatgg	tgttcatgga	cacctcccct	68340
agagggcctc	atccttctcc	tctaccctca	gttcaacagc	agaaccaagc	gtgacaacct	68400
gtgccagagg	ctgacaccag	agggagaggc	aggaggaaaa	ggatgcagga	ccctagaaga	68460
gccataatgt	tgccattaga	agaaagctgc	tgggcccatc	tgactttttt	tttccccag	68520
tttcttcaac	catccttttt	aatgcatgat	ttcgagtctc	acactgactt	ctctgaactc	68580
attccagttg	gagtgaagctg	ggccataatg	ttcaaagtgt	gctgatcaga	gtacaatggg	68640
tatcacttcc	ctcagtgtag	acattatgcg	tgtgtgtatg	tgtgtgttta	tatgtatagt	68700
gtaacctcaa	actcctgggc	tcaagagatc	cttcttgctt	cagcctcctg	agcagctgag	68760
actataggtg	tgcaccacca	tgcttggtca	aattttaaat	atttttaga	gatgggggtc	68820
acgctatgtt	gcccaggctg	gtctcgaa	cctgggctcc	ctctcacctc	agcctgccaa	68880
aatgttggga	ttacaggcat	gagccaccac	actcagctag	atattctatt	taattaaacta	68940
attaattaat	tttttttagt	ggttaaggag	tggaaagctt	aatagacaga	agaaagcaga	69000
gaggagagca	gttccttgtg	aaggagagag	agatgtctga	aaaaaggcct	agatagatat	69060
tctattttaa	tcagtgtatt	taagattgga	ttagctttct	tttttttttt	tttttttttt	69120
tttttttttt	ttttttgaga	tggagtctca	ctcttggtgc	ccaggctgga	gtgcaatggc	69180
acaatctcag	ctcactgcaa	cctctgcctc	ccagggtcaa	gccattatct	tggctcagcc	69240
ccctgtgtag	ctgggattac	aggcacctac	caccacgcct	ggctaatttt	tatatatttt	69300
agtagagatg	gggtttcacc	atgttggtcca	ggctgggttc	aaactcctga	cctcaggtga	69360
tcaccccgcc	tcggcttccc	aaagtgtctg	gattacaggt	gtgagctacc	atggctggcc	69420
tggattagct	ttcatgggtg	ccacatcaca	ccacggattc	ccactgca	atcgtcagaa	69480
gctcccgtgt	ctcctttaca	catatcgtga	gaaaggagat	ggagccatgt	tgcattccatc	69540
tctttatttt	tgcagttggt	gttttggact	cagtatagtt	acctttaacc	tctagaaatc	69600
ctaactttct	gttcttctat	gctttctcag	catgaaagt	gtaggatgct	aagctttgtt	69660
ctggtttttc	ttggtgcagg	agaggaggag	gccggaatgg	gggttacaac	ttgggcccgg	69720
ttatactcct	gaggctcaga	tgagcccggc	caacatggcc	tcagtctgga	gaggacttag	69780
cttctgagtc	aatttgaaaa	gtctttta	atgaattaaa	gagaaagtgt	gggctggggg	69840
cagtggtcca	tgcattgtat	cctagtgctt	tgggagctg	aggtgggtag	gttgcttgag	69900
cccaggagtt	tgagaccagc	ctgggcaaca	tagtgagacc	ttgtctctac	aataagttaa	69960
aaaatttagct	gggcatggtg	gcacccacct	gtagccccag	ctacttgaga	ggctgaggtg	70020
gaaggatcac	ttgagtctgg	gaggttgagg	ctgcagttag	ctgtgattga	gccactgcac	70080
tcagccagg	gtgacagagt	aagactctgt	ctcaaaaaaa	aaaaagtgtg	tggcaaagac	70140
aaaactacta	ttcaagcact	catctgaggt	gctaggagac	ccccgggctt	tgtggcaggg	70200
gctagaaggg	ccctgtctgc	ccagttatac	ttaggaactg	agaatttgaa	ctcttgctac	70260

tgctcccagg	acaggatctg	cttaccaatt	cagccatttt	ctgagttttc	atggcacttt	70320
gaggacagca	tttatcatat	tattttgtgc	gttgggagtt	cctatggcca	gaaactattt	70380
cttattcatt	ttcaaattcc	tagctccaaa	gccaaaggtat	tacaccccag	aactaatagc	70440
tatcatttat	taagtactaa	cttaggcact	aaaatttaggt	actctccata	tattaatctc	70500
acaacaaccc	aacaaggtta	atgctaatat	ttccatgttg	taggtgaaga	aactgaggct	70560
aaagaccaca	gctctaccaa	agcctctgct	ctttcttcaa	atgaatgagt	gagtcggggg	70620
cggttgctct	gagtgagagt	gggccagagt	gggttcaggg	cattcaggag	ccaccacagc	70680
tcattcgttg	aggtgtctaa	tcagctatgc	taattgattg	tcgtgtctgc	aatatcagat	70740
gcatgcttaa	ttagcacatg	aactctcctg	tcagatatct	ctggaggggc	tctgccagcc	70800
aacctaggcc	cagccacagg	agcctgctgc	tttcttgtaa	acaggggtgg	gaagcatgat	70860
gatcccagta	ttgacaagga	tcccctgaga	acaggaaggt	ccactgcttt	gtcgtgtggg	70920
aagcagattc	aggatgaagc	cctgtctaca	agatgtgtcc	agtctcctcc	gcctcgaggc	70980
ccttggttca	tcgacctctt	ccctacagcc	tttggaacttt	gcaccactct	ttgaggcctc	71040
tgtgcttttt	tccaagctcc	tgcttctgcg	ctggctcttc	tctccctagc	aaatccctat	71100
tcacctttaa	gggtccagct	caaatgtcac	ttcctttgtg	gagttccccc	tggcccccgt	71160
gctaccgca	gagtggcaga	atcaaagtct	tcctcttcag	acttgctcct	attgtacttg	71220
tacctacctg	actctaattg	gagtctcttc	aaattacagt	gtttttgacg	tgtttttctc	71280
ccccggccag	acttagggct	tattcaaggc	agagaccaca	gtcttcagca	tccggcacaa	71340
agcccgccct	gtacaagaca	ctcagtacat	ttaatttggt	gaattaaact	gaatgctagg	71400
ttgagggttc	actgcaggta	agaactgggc	aagtgtaaac	ttccagaact	cagcagctat	71460
ttattagtga	tatgcagatg	taggtagggc	atctttgaaa	tcttcccaag	gattctgtga	71520
tccttatttt	tccttttcac	aataatcttc	tcctacttgg	gaaaaagggg	gataaaatcg	71580
cactttggcc	ccagcctggg	gagaatcttg	gcattaggct	ggggggccat	ggtgggagga	71640
agcatgggac	tggggcctaa	aggccatcaa	ccagactgca	agctgcctga	gtgcaggatg	71700
tgacttcccc	tccctcccac	acatatggcc	attgcttcac	ctggagtgc	ttgggactgg	71760
ggaatcaggg	gtgggcagca	gtgcaggaaa	acccatccgc	accagcctgg	ggctccctct	71820
tctactacc	tcattgagcc	ctgtggagtg	tggactgttg	ctgctgtcct	gatcccccaa	71880
atgccataac	tgctgacttc	tgatgtaaat	agtgtacatt	tgttttttac	tttgacagta	71940
atttgcatat	acttctctga	atgacagaca	tataggaatt	ccctgatttc	tatgacctca	72000
cttccacacc	acaaaaaac	acagtggctc	ctatacctct	gtactcaggg	actcccaacc	72060
cagggtgggca	gataccaggg	ggtttctgag	gagccctgca	tcaagcaggc	accagcccag	72120
gaggaagcga	tccaggaatc	ccactacccc	ggagccact	gctctggcgt	ctctttcttg	72180
tctctggggg	ttgtgcgggg	tgagggcattg	gggtttgttg	aaatgtcttc	gtgattttgt	72240
aattcaggct	aggagtcatt	tcggagaaaa	gcgaatgaaa	agtagggtaa	aggggaaaga	72300
ggggctttgt	gacttaggtg	ggctttgcag	aaggacagga	agccacaccc	cgagccttac	72360
aaggcaagct	ggatggggct	gcccggctgc	aatggggatg	gaccgataca	gaccgctcag	72420
tgtagccacc	tgctggacac	atggagtcat	agcgttctgc	ttccttcattg	cttccctacc	72480
tcagctgcg	cctgctcttc	tttcttctct	ctttctcttc	cttcgcctta	gttcgcctcc	72540
ggcccgcata	cctgcttttc	ctcttccctc	aggtgtgact	accagatgc	atctgtcttg	72600
gccagggct	ggggactctg	aatttctctc	tttggtgatg	actgaaaggg	agcagctatc	72660
cctgggttag	gccagagaga	aggcttttca	tctccatgtt	cagtctctcc	accttctcgc	72720
ttggcttgct	gggatcctgc	gcttggtctg	gattagaggc	cactgaattt	attgtccaaa	72780
ctgggatgct	tctgagagtg	aagggtgtgt	gtgcttgcta	ttagtaatta	tgacagagaca	72840
acagctgtag	accagaattg	tcccgggcca	gcggggactc	atggtaagca	tagttccgag	72900
ggtccgcggg	ccttttcggc	cgtgcgtcag	gtgtggaagg	ctaaggcggc	cagcagaggc	72960
tgctgcggca	cttggttatgt	gcctcactat	ctaaaaagct	ccttttgcca	tgctgggact	73020
gtggtgggtg	aagttaggtg	tcgtacaggg	ctaaggctcc	ctgagtagtg	attgtaccag	73080
atttgctcac	ctgggccttg	cgcacaatgg	gataagaaag	ccgcctgctt	cctctagtct	73140
gggtgggaga	cacagcccaa	agtcccaggg	cctaccttct	cagaaactcc	ccatcatcct	73200
ggattggact	gtgcctttcc	tgaattctga	cactctttgt	tcttgccctc	tcaggcaaaag	73260
actgggcgaag	cagtttcccta	gcattgccag	ctctgaggct	ggtgcctttc	tgggtggatt	73320
attggccttc	ctggatacat	tggcaggagg	actcatgggt	cggccccagg	atgccctggc	73380
cagaggggac	ccaaggaatg	cctgacagtt	tctctgcctg	acttgacagg	gggaattcag	73440
accagccttg	gagtcctgtg	aagggaagg	gctcctggaa	tcttctagcc	ctccttctct	73500
tcacccagtt	ctaactctgg	cagaaagacc	tcatttctct	ttccccatgt	gggagacttt	73560
ccctcccttg	acccctcttg	cagttgggag	accttgatcc	ttgtgggagg	aaggggttgc	73620
tgtaccagga	tggggctcct	ccgctccctc	ggccagggga	agcatgacct	gctgagctgg	73680

agtctggccc	cgcaagctgt	tgtggcctga	cctgtagttg	cttggcccagt	accagcccct	73740
ctctcccatc	ttctctccct	gctcacctga	agggagaggg	cagtatcagg	ctttccaggc	73800
tacgtgctgg	tgatcatacc	atggcaaagg	gcgggtgtctc	acacaggctg	cgggagagct	73860
gccctgctta	agcagagaat	tctggagcag	cagtgggtat	cccaggcagc	cacagggatt	73920
gccatggcaa	cacgcgaggg	agcagcagcg	ggagacggga	tggagcaggg	cgttttctag	73980
gctagagctg	aattcctggg	gtggtcagga	gagggctgga	gggcaagaga	tccataaacc	74040
cacagctgcc	ccgacagagg	gcagtctgcc	tttgctcctg	gccccttgtc	agtggaaatc	74100
cgacaccccc	tggtacatgt	ctgttaggtg	tccagcctgg	gcagagggcc	ttgttggtgt	74160
gtggagaggg	ggaaggggaa	tcaaacttaa	ctgcagagat	ttgttttctc	agtacatctg	74220
aagaatagaa	atgggtttta	ggctgcgcca	gcctgcgttt	ttctacctgg	gggactctga	74280
gccatcaaag	ttaacctaga	ctagtaaccg	gggatcaatt	acagacctgt	aatatgcttt	74340
ccaacttccc	attgtaaaaa	gcagcctatt	tggaaaaaaa	ataaatgaaa	gtgcttttct	74400
tgggtctctg	tgccactgag	ccagtgtgat	tcctcctctc	cccagttgcc	tttgcccact	74460
tctcactcat	tacctctact	caattagcca	aggctgggtt	aacccctcaa	gagccaggat	74520
ttgggtgaga	ggggattgct	gtcaccttct	acaggcacgc	cctcctccta	gcacagttct	74580
cgggagcgca	gagcggggcca	agtccagagc	ctgccaacct	cctccccacc	ctctctctcg	74640
ctgccaaate	tgacttttgat	tagcgtgtgg	agggggaaga	aagcaggaaa	atagaatatt	74700
aaaatcttaa	ttcaatttaa	aacactgtca	ttcacaggca	tgccaaacag	tgagatgact	74760
aattattatg	caaatgaggg	agatagaaaa	gtgattaata	attgcacaaa	ttaaaaatta	74820
ttgtaaacat	cctgtgacga	gtgataagtc	cgatggagag	gcgagagcgg	tgggccgggg	74880
aggccatggc	ggagctggct	cctgcatact	tatttctctca	ttagggggat	ttaattagcg	74940
cctgatgatg	gggctccgtg	ctgccagggg	tggaggagtt	ggtggccagg	gcctgggcgg	75000
tctgtgctgg	atcctcgggt	tttctccagt	tcctccttat	tgctctgtgg	ctggggctgg	75060
agctggctgc	acaggaggag	gggtgggttg	gggttgggga	aaggctggac	accatagagg	75120
agcaggtgct	gtgcaaagct	tctctgccgc	cttccactgg	ccttttgccc	gctgctacct	75180
ctgtcattta	agtcctcagg	tgtgggtcag	gggtgttggt	gaggaggccc	ctgggtgagg	75240
aactgtgggc	acatcctgat	tcagccaggc	atattcctca	gggttttagt	aagcgacaca	75300
cagggcacgt	ccccaatgct	gaaaggtccc	agggaggata	gacaggtata	tgatgctgcc	75360
tggggccctca	gggttgccct	gggtccaagt	ttccctgact	ctgctgggca	catagaaact	75420
aagtcagtg	cctgagccaa	gtgacttgcc	cttagccatg	ttcaacctgc	atccaagcgc	75480
cccgcagcag	ggaatgctta	ggagtcactt	tggcttgggt	gggcatggct	gctgcaaggc	75540
aggggacaga	ggaggccgag	ttctttgggc	ccagcagcac	caggtgcttt	ccagggcatg	75600
cagccctcct	ggattcctcc	tgcccaaata	gggaagcagc	tgatatgttc	ttgacaaaaac	75660
ataccagcca	gccacagtac	agcttcccc	tgccagtccc	cgagccctga	actctgagca	75720
ggaggggatg	ggactgggtc	taggctcaag	gaaaggtggc	tgatgatggg	aaatccatct	75780
ccctgctcca	ccccagtcca	ccatggacct	tagggagatg	gtcttccttg	tccagagaag	75840
accacagaat	aagctgggag	gtgaagagcc	tgggtgaagag	ccttttgctct	tcagaggaac	75900
agtggatgct	ggaaattctg	gcagttggga	aggcttctgg	acagggccaa	ggtgggaatc	75960
tggcctttga	aagatgtaga	ggactcagaa	aagaggggtg	gaggtgagaa	atagagagaa	76020
tagcgttatc	caagtcttta	ccttctctct	aagagcccag	attttctctaa	cggggctaag	76080
aagctgaggt	tttcacaggc	caaaggccca	gcctgtgtgt	ccctaaattt	ctcttctctga	76140
gactgtgggtg	taaaattaat	ttttttttcc	tgggtgaggg	ttggaggtga	gaaaggttta	76200
tttctgtttc	aggactcaca	cagttatccc	agggttaata	acctgcacac	agccttgtca	76260
ccacagccac	tagtaccctt	cttcccaccc	cctctctgcc	agcctcatgt	cttcactctg	76320
gttcctgggt	ttctctagtc	cctttctgat	tcctggagga	ggaaagtctt	ttcctatttg	76380
gactgcaagt	ccacccctct	gaattctggc	taaagcttcc	tggactctga	aggctctccc	76440
ttcactgtga	actgttttag	catagctgcc	aaacttcaac	aaactccctt	ctccatctcc	76500
tctctttgcc	cactcctgac	tcctgcctta	tgetaccctg	agccctcctt	gggttcttat	76560
tctgtttttc	ttttgttttg	gtttctctgg	ggctctgctg	aggcagcaaa	gggtgatggg	76620
gtatggtact	gattctgtgt	ttaccttgga	caaactatat	cacctctctg	tttctctatt	76680
gttataactg	ggaaaatgct	acaactctat	ggaatcttct	actttcccat	cttcatcagt	76740
tcatttatct	catcaagact	tcacctctac	gcgtcaagtg	ctggggatgc	aaagctgcag	76800
atggtctcaa	ggaacgcgag	ccctgttggg	aggcagataa	aggaacagca	cgcgcagagg	76860
cccgaggag	ggaggagaa	agaagtgtgg	agactggcaa	gggatttggg	atggcaggag	76920
gacaggttgc	actggggagt	ggtagagttg	gaggcctttt	gttccttgga	atttcaatac	76980
gattttgtgg	gctctgagca	ggtaagaaa	gactttgttg	gggtggcagg	caggactaac	77040
actgtgtttt	agaaagaycg	ttttggcagc	agtgtggaga	tgggcaaggc	tggaggcagg	77100

gtcccccccc	agaggcagct	gctgctgtct	gtatgaaaga	cgatgaactg	cagccatcag	77160
gtgtggctca	agagtcacgg	gaagaggaga	gagctttgtc	atgagtcaga	aaaggcagga	77220
tgcagcatct	cagtgactgt	gaggggtgacc	gagggggcgt	cttgggtgac	acctgggttt	77280
ctggcatgga	gcaatgctct	tctttgagaa	gagggatcta	gggaagaagg	agagatgatg	77340
atggtgttgc	tttgggaatc	ctgggaatga	ccaccctggg	tttagttgcc	tgggacggag	77400
tgggaattga	atatctgcta	ttgaatat	gatattgaac	atgctgaatt	tggcgcttca	77460
tctgcottgc	ctgttttatt	tctcactctg	accataccta	gatcttttga	aaggaggctt	77520
gacctatcc	tgaagcttga	ccctgacctt	ctacctttca	acatttttgt	tagcgggcgc	77580
ctgcttgccg	actttctgag	atgcacttct	cagttattca	gctgtgtcta	cattcattcc	77640
cacaggctct	gggcagggtg	gaagaaccca	catttgacct	tatggcattg	gacttgggtt	77700
gttgctacct	ctattctgtg	ccatggggaa	gaaggctctt	ctctgctgag	tcctaacagg	77760
cagatactgg	ctgtaaatcc	tttctagacc	cctccccggg	gcccacgctc	tgaggctact	77820
cgaggggcgg	tgtgttgttg	ctgagacccc	tgaatcgcac	tacttcaggc	tgtcccctca	77880
cctcgggggg	ggagataagg	cctgggggtc	gagtttgagg	ggactgacgc	caggcagggc	77940
tcctagcagt	aagggtgaac	tgtctccctc	ctcagagcga	ctttctaacc	cagcttccca	78000
ttcctctgag	gctgccgcca	cccttgggaa	gcacacattt	gtggttgccg	aacagttgaa	78060
gggcagtggc	tctttcttcc	agggcagtg	gggcctgcct	ctggctcccc	cgggagggtc	78120
gcacccccac	ccacctgtgc	ccctcattaa	gagtaagcag	cccagagtgc	agcacttggt	78180
gggacccatg	aagaccccc	caggagtccc	tagtgggtcc	cagtgtctcc	attatgccc	78240
ctgcagttct	cacagtgc	taggaaagtc	catgtgcttt	tgctctccag	agagctcctg	78300
gtcactttct	aatatgtctc	cagcaactca	gcattatcag	tattgcccc	atatctcttt	78360
gatggaatcc	ctatcaggct	actggcattc	atagctactt	cccacagaat	cccaggaaca	78420
ctccagtaat	tcccagtgag	ctccagtag	tgccagggtg	ctccataacc	tcacagtggg	78480
cttctagtga	tatcacattg	tgtaccagag	agcacctggt	gttcccccaa	gaacgttcca	78540
gcatgttccc	aagaatgctc	caacacatgg	catcaacatt	ccactattcc	tgcaagattt	78600
ccagtagatg	ccattacttc	tcaagttatc	tccaccaatg	ccactgatgt	gcttagagga	78660
gaatctgctg	tcttgcacc	caggaatgaa	gagaggttct	ttgcctactc	ctcctgcaag	78720
acacctgggc	tttctgtctt	tgggaggtcg	gtagggaagg	caaaggagtg	ggaataacat	78780
ttgttgagtg	atagccgtgg	cttaggcatt	tatttgtgca	ataaaactgca	aggtgggtgg	78840
tatccctatt	ttatagactc	agaaaactgtt	acccagagag	tggagtaatt	tttttccaaa	78900
ggcagtaagt	ggcaggaggt	gatcagaagg	gcagctctgt	cagggtctgac	atccctgctt	78960
gtccggagcc	tgcagagacc	cagagaaggc	aaatcccagg	gccagagatg	cacagggtag	79020
gggcggggga	gggtgggcag	cggtctctag	gctccttctc	tccctcccta	ctttgttttc	79080
tcctttggat	tgcaggcgta	ttcattctctg	agaaagaaag	gaaaggggtt	aggactgggt	79140
gagctgtcct	ggtttctttg	gagagaagct	gtggttcccg	gaacgtcttg	gctctctggg	79200
gactgcaggg	gtcagatcca	tccctccag	tttcacatgc	ctactcagct	tccacattcc	79260
acatccagtg	gctcaccaga	cccacccacc	ggcccagatg	acccagttcc	agggccggcc	79320
tcagggttct	gggtccctc	ctgggcctgc	cctcagccct	gggcacaacc	tcaaactcca	79380
ggtcctgggt	tgtacatccg	cctttctgoc	cctttccac	actcgctgct	gctctccac	79440
tggctgcctt	ccctggcatg	ggtgaccttg	ctagtgccag	gggactctga	acagcgctga	79500
ctcagcaggt	ggggcgatgg	agccactctg	cagggtggga	aacaggggag	caaggctggt	79560
tctttccttt	ccctgacccg	gcggggtccc	tttgcccttg	ggagtgtgga	cggaggggca	79620
gggagctgga	cagggaggat	gaggtccagc	gccctgggtg	agggccctgg	tcggggagac	79680
ggtgcccggt	ggcttggcct	ccctagcaag	gactctgccc	cttgttcttc	agcctgtcag	79740
ggagaagagg	aagggtctct	tctggtgctg	tgtcgagcag	cagcctccca	cacggagtgg	79800
ggaggggaaa	gttgaaacgc	accttgactc	ctgacctct	cctccccacc	ctcaccacca	79860
ccccaccac	ggcagacatt	gttggaaggc	atattaatgg	aggggttagg	cagtttggag	79920
acagactgcc	taggttcatg	tcttctctca	tctcattctt	ggacatatca	cttaggtctt	79980
ctgaaccctg	atttctccat	ttataaaatg	tggctaataa	tggtacttac	ctgtcacatg	80040
gtaaatgctc	aattgaaaag	gctaacatga	gaatgccatt	ttctgttatg	tacatgatgc	80100
ttcataaat	cacactggcg	cacatatgcg	attatgtgtg	ggctttctgt	gcgctctgcc	80160
cttccccagc	tttgcgtgtc	gtccttgttg	cttccagaag	gttgagaggg	aggtgagggg	80220
tctgctcctg	acaatgctga	ctactgaggg	gctgagtgtc	gcccaggaaa	gtaggtagca	80280
gaggagagaa	gacttggcct	aagcgaggga	gccagggcct	tacagaggaa	aggaaaaggg	80340
ggcaggggga	aggaggacag	ggagggtggc	tgggtatggc	aggagtccag	gcatctcaga	80400
ggcatgaagg	agctgggggt	gctgccttcc	tactcgggct	caccctgcca	gccccacac	80460
tgcctccac	accagacacc	cagcagtgct	gctaaggcca	ctggccaggg	ggtgtgggcc	80520

```

acctgcacct actgcttgcc tttgggggag attttttttg gggggattct tggctctctt 80580
gggttatgct cctccttctg gtgtacccta ggcaggaag agtttgggga gaatgggagg 80640
ctgctgtgag gggttatagg tgggttacttc acggactccg tgagtctggg gctccttctg 80700
tgaagtctca gtgacaggac acgaacccaa gaactgttgg catgtggcat ccttgcctca 80760
ggagctcttc agcaagtgtc ggagttcaca tggccagcct gagggagggg tcttctgtgt 80820
tctctctgca ccccttcccc tccttcgagc ccagtgtcct cagggcaggg gtgggtggca 80880
gtggggagga gggaggggag atggtctgtg atctctgggt gcagtgaatt tgggactaaa 80940
catcattaat gctgacagat gccagccata ctaacttgta gaataacagg acaatctagg 81000
g 81001

```

<210> 2
 <211> 1879
 <212> DNA
 <213> Homo sapiens

<220>
 <221> 5'UTR
 <222> 1..29

<220>
 <221> CDS
 <222> 30..1121

<220>
 <221> 3'UTR
 <222> 1122..1879

<220>
 <221> allele
 <222> 1153
 <223> 17-41-250 : polymorphic base C or T

```

<400> 2
agacgtgagc agagcaggta atg gca agc atg gct gcc gtg ctc acc tgg gct 53
                        Met Ala Ser Met Ala Ala Val Leu Thr Trp Ala
                        1          5          10
ctg gct ctt ctt tca gcg ttt tgc gcc acc cag gca cgg aaa ggc ttc 101
Leu Ala Leu Leu Ser Ala Phe Ser Ala Thr Gln Ala Arg Lys Gly Phe
                        15          20          25
tgg gac tac ttc agc cag acc agc ggg gac aaa ggc agg gtg gag cag 149
Trp Asp Tyr Phe Ser Gln Thr Ser Gly Asp Lys Gly Arg Val Glu Gln
                        30          35          40
atc cat cag cag aag atg gct cgc gag ccc gcg acc ctg aaa gac agc 197
Ile His Gln Gln Lys Met Ala Arg Glu Pro Ala Thr Leu Lys Asp Ser
                        45          50          55
ctt gag caa gac ctc aac aat atg aac aag ttc ctg gaa aag ctg agg 245
Leu Glu Gln Asp Leu Asn Asn Met Asn Lys Phe Leu Glu Lys Leu Arg
60          65          70          75
cct ctg agt ggg agc gag gct cct cgg ctc cca cag gac ccg gtg ggc 293
Pro Leu Ser Gly Ser Glu Ala Pro Arg Leu Pro Gln Asp Pro Val Gly
                        80          85          90
atg cgg cgg cag ctg cag gag gag ttg gag gag gtg aag gct cgc ctc 341
Met Arg Arg Gln Leu Gln Glu Glu Leu Glu Glu Val Lys Ala Arg Leu
                        95          100          105
cag ccc tac atg gca gag gcg cac gag ctg gtg ggc tgg aat ttg gag 389
Gln Pro Tyr Met Ala Glu Ala His Glu Leu Val Gly Trp Asn Leu Glu
110          115          120

```

ggc	ttg	cgg	cag	caa	ctg	aag	ccc	tac	acg	atg	gat	ctg	atg	gag	cag	437
Gly	Leu	Arg	Gln	Gln	Leu	Lys	Pro	Tyr	Thr	Met	Asp	Leu	Met	Glu	Gln	
125						130					135					
gtg	gcc	ctg	cgc	gtg	cag	gag	ctg	cag	gag	cag	ttg	cgc	gtg	gtg	ggg	485
Val	Ala	Leu	Arg	Val	Gln	Glu	Leu	Gln	Glu	Gln	Leu	Arg	Val	Val	Gly	
140						145					150				155	
gaa	gac	acc	aag	gcc	cag	ttg	ctg	ggg	ggc	gtg	gac	gag	gct	tgg	gct	533
Glu	Asp	Thr	Lys	Ala	Gln	Leu	Leu	Gly	Gly	Val	Asp	Glu	Ala	Trp	Ala	
				160						165				170		
ttg	ctg	cag	gga	ctg	cag	agc	cgc	gtg	gtg	cac	cac	acc	ggc	cgc	ttc	581
Leu	Leu	Gln	Gly	Leu	Gln	Ser	Arg	Val	Val	His	His	Thr	Gly	Arg	Phe	
			175					180						185		
aaa	gag	ctc	ttc	cac	cca	tac	gcc	gag	agc	ctg	gtg	agc	ggc	atc	ggg	629
Lys	Glu	Leu	Phe	His	Pro	Tyr	Ala	Glu	Ser	Leu	Val	Ser	Gly	Ile	Gly	
		190					195					200				
cgc	cac	gtg	cag	gag	ctg	cac	cgc	agt	gtg	gct	ccg	cac	gcc	ccc	gcc	677
Arg	His	Val	Gln	Glu	Leu	His	Arg	Ser	Val	Ala	Pro	His	Ala	Pro	Ala	
		205				210					215					
agc	ccc	gcg	cgc	ctc	agt	cgc	tgc	gtg	cag	gtg	ctc	tcc	cgg	aag	ctc	725
Ser	Pro	Ala	Arg	Leu	Ser	Arg	Cys	Val	Gln	Val	Leu	Ser	Arg	Lys	Leu	
220					225						230				235	
acg	ctc	aag	gcc	aag	gcc	ctg	cac	gca	cgc	atc	cag	cag	aac	ctg	gac	773
Thr	Leu	Lys	Ala	Lys	Ala	Leu	His	Ala	Arg	Ile	Gln	Gln	Asn	Leu	Asp	
			240						245					250		
cag	ctg	cgc	gaa	gag	ctc	agc	aga	gcc	ttt	gca	ggc	act	ggg	act	gag	821
Gln	Leu	Arg	Glu	Glu	Leu	Ser	Arg	Ala	Phe	Ala	Gly	Thr	Gly	Thr	Glu	
			255					260					265			
gaa	ggg	gcc	ggc	ccg	gac	ccc	cag	atg	ctc	tcc	gag	gag	gtg	cgc	cag	869
Glu	Gly	Ala	Gly	Pro	Asp	Pro	Gln	Met	Leu	Ser	Glu	Glu	Val	Arg	Gln	
		270					275						280			
cga	ctt	cag	gct	ttc	cgc	cag	gac	acc	tac	ctg	cag	ata	gct	gcc	ttc	917
Arg	Leu	Gln	Ala	Phe	Arg	Gln	Asp	Thr	Tyr	Leu	Gln	Ile	Ala	Ala	Phe	
		285				290						295				
act	cgc	gcc	atc	gac	cag	gag	act	gag	gag	gtc	cag	cag	cag	ctg	gcg	965
Thr	Arg	Ala	Ile	Asp	Gln	Glu	Thr	Glu	Glu	Val	Gln	Gln	Gln	Leu	Ala	
300				305						310					315	
cca	cct	cca	cca	ggc	cac	agt	gcc	ttc	gcc	cca	gag	ttt	caa	caa	aca	1013
Pro	Pro	Pro	Pro	Gly	His	Ser	Ala	Phe	Ala	Pro	Glu	Phe	Gln	Gln	Thr	
				320					325					330		
gac	agt	ggc	aag	gtt	ctg	agc	aag	ctg	cag	gcc	cgt	ctg	gat	gac	ctg	1061
Asp	Ser															

```

gccccatgttt cctgacatag ctctacacct aaataaggga ctgaaccctc ccaactgtgg 1761
gagctcctta aaccctctgg ggagcatact gtgtgctctc cccatctcca gcccctccct 1821
ctgggttccc aagttgaagc ctagacttct ggctcaaatg aaatagatgt ttatgata 1879

```

<210> 3
 <211> 366
 <212> PRT
 <213> Homo sapiens

```

<400> 3
Met Ala Ser Met Ala Ala Val Leu Thr Trp Ala Leu Ala Leu Leu Ser
1      5      10      15
Ala Phe Ser Ala Thr Gln Ala Arg Lys Gly Phe Trp Asp Tyr Phe Ser
20     25     30
Gln Thr Ser Gly Asp Lys Gly Arg Val Glu Gln Ile His Gln Gln Lys
35     40     45
Met Ala Arg Glu Pro Ala Thr Leu Lys Asp Ser Leu Glu Gln Asp Leu
50     55     60
Asn Asn Met Asn Lys Phe Leu Glu Lys Leu Arg Pro Leu Ser Gly Ser
65     70     75     80
Glu Ala Pro Arg Leu Pro Gln Asp Pro Val Gly Met Arg Arg Gln Leu
85     90     95
Gln Glu Glu Leu Glu Glu Val Lys Ala Arg Leu Gln Pro Tyr Met Ala
100    105    110
Glu Ala His Glu Leu Val Gly Trp Asn Leu Glu Gly Leu Arg Gln Gln
115    120    125
Leu Lys Pro Tyr Thr Met Asp Leu Met Glu Gln Val Ala Leu Arg Val
130    135    140
Gln Glu Leu Gln Glu Gln Leu Arg Val Val Gly Glu Asp Thr Lys Ala
145    150    155    160
Gln Leu Leu Gly Gly Val Asp Glu Ala Trp Ala Leu Leu Gln Gly Leu
165    170    175
Gln Ser Arg Val Val His His Thr Gly Arg Phe Lys Glu Leu Phe His
180    185    190
Pro Tyr Ala Glu Ser Leu Val Ser Gly Ile Gly Arg His Val Gln Glu
195    200    205
Leu His Arg Ser Val Ala Pro His Ala Pro Ala Ser Pro Ala Arg Leu
210    215    220
Ser Arg Cys Val Gln Val Leu Ser Arg Lys Leu Thr Leu Lys Ala Lys
225    230    235    240
Ala Leu His Ala Arg Ile Gln Gln Asn Leu Asp Gln Leu Arg Glu Glu
245    250    255
Leu Ser Arg Ala Phe Ala Gly Thr Gly Thr Glu Glu Gly Ala Gly Pro
260    265    270
Asp Pro Gln Met Leu Ser Glu Glu Val Arg Gln Arg Leu Gln Ala Phe
275    280    285
Arg Gln Asp Thr Tyr Leu Gln Ile Ala Ala Phe Thr Arg Ala Ile Asp
290    295    300
Gln Glu Thr Glu Glu Val Gln Gln Gln Leu Ala Pro Pro Pro Pro Gly
305    310    315    320
His Ser Ala Phe Ala Pro Glu Phe Gln Gln Thr Asp Ser Gly Lys Val
325    330    335
Leu Ser Lys Leu Gln Ala Arg Leu Asp Asp Leu Trp Glu Asp Ile Thr
340    345    350
His Ser Leu His Asp Gln Gly His Ser His Leu Gly Asp Pro
355    360    365

```

```

<210> 4
<211> 5381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> 1..918
<223> 5'regulatory      region

<220>
<221> exon
<222> 919..930
<223> exon 1

<220>
<221> exon
<222> 1442..1498
<223> exon 2

<220>
<221> exon
<222> 1613..1724
<223> exon 3

<220>
<221> exon
<222> 2243..3940
<223> exon 4

<220>
<221> misc_feature
<222> 3941..5381
<223> 3'regulatory      region

<220>
<221> allele
<222> 319
<223> 17-42-319      : polymorphic base C or T

<220>
<221> allele
<222> 3213
<223> 17-41-250      : polymorphic base C or T

<220>
<221> conflict
<222> 1241
<223> 17-39-343      : T in ref genbank AC007707

<220>
<221> conflict
<222> 1447
<223> 17-40-202      : G in ref genbank AC007707

<220>
<221> primer_bind

```



```

<222> 1..11022
<223> 17-42.pu

<220>
<221> primer_bind
<222> 553..11575
<223> 17-42.rp      complement

<220>
<221> primer_bind
<222> 899..11920
<223> 17-39.pu

<220>
<221> primer_bind
<222> 1246..12267
<223> 17-40.pu

<220>
<221> primer_bind
<222> 1441..12461
<223> 17-39.rp      complement

<220>
<221> primer_bind
<222> 1632..12651
<223> 17-40.rp      complement

<220>
<221> primer_bind
<222> 2964..13984
<223> 17-41.pu

<220>
<221> primer_bind
<222> 3432..14454
<223> 17-41.rp      complement

<220>
<221> primer_bind
<222> 300..318
<223> 17-42-319.mis

<220>
<221> primer_bind
<222> 320..338
<223> 17-42-319.mis      complement

<220>
<221> primer_bind
<222> 3194..3212
<223> 17-41-250.mis

<220>
<221> primer_bind
<222> 3214..3232
<223> 17-41-250.mis      complement

```

<220>
 <221> misc_binding
 <222> 307..331
 <223> 17-42-319.probe

<220>
 <221> misc_binding
 <222> 3201..3225
 <223> 17-41-250.probe

<400> 4
 cagcagatga gactggaaat gagtcaggat gagccacagt ggaggatgaa ttaaattgggc 60
 aggagtgtgg tagaaagacc tgttgaggagc tatgaatgca atcaaggatga cagacaactg 120
 gtgcaatgat ggtagtggaa atggaggaga ggggattgat tcaagatgca ttaggacca 180
 agaatcggga gcttgtgaac gtgtgtatga gtactgtaga cggagtgggt gtgtcatcag 240
 agaagatctg agcatttggg cttgctctcc tcagaggccc tgcgagtggg gttcagcttt 300
 tcctcatggg gcaaactctya ctttcgctcc agttcctggg gctcagagtc cctggcccag 360
 atgcctcttg ccattctcatc ttcaccctgc ctggcttccc ttgcttggtc caggattggt 420
 tcataaagag ggaatgtggtt ggtctttaac cctatgaatg ctggctgagg atgcctgcgg 480
 aacctgtagt gaagctttca ggggctgctc ggggttctggc tggtaggtga aactgtcca 540
 tcttgccggc tgggacacag tgactctggg tagttgtgta agagaggggc ccttggcaga 600
 caaacagggt cttctctggt ggtgggcccag ccagcaggtc agtgggaagg ttaaaggcca 660
 tggggtttgg gagaaactgg gtgaggagtt cagcccatc ccccgtaaag ctcttgggaa 720
 gcacttctct actggggcag cccctgatac cagggcactc attaacctc tgggtgccag 780
 ggaaagggca ggaggtagt gctgggaggc agctgaggtc aacttctttt gaacttccac 840
 gtggtattta ctacagagcaa ttggtgccag aggtctcagg ccctggagta taaagcagaa 900
 tgtctgctct ctgtgccag acgtgagcag gtgagcagct ggggcagagg gatgggggtc 960
 acagtccataa gggaggggcat tgcagggtggc ctacggggag agcctggggg ggcccctaag 1020
 acgtcctctt ggaacatttt ggcagagttg cctcttcgcc ctcatatagg ctcagttttt 1080
 ccaccatgaa atgggagggg gggagacagg tgggcagggg agagggtgga gaagtggcct 1140
 agagaactgt tcctgggggtc tgggaccttt gcgaaggggg tagagcacca cgctccctgc 1200
 tatgtgactg aggtagcaag agcacgcctt ctctccatgt ctgaggaaga caccctagcc 1260
 tccttgactc acctagggtca gtccctcttg gcccacacag ctctgtgctc cccagcccaa 1320
 ggaaggggta acaggatttc gggcagttgc cctgcagag gccccctggg caagtccctt 1380
 gcgcatgtc ccttcgtctc cttcttcccc taaccaggcc tccctccacc tgtcttctca 1440
 gagcagataa tggcaagcat ggctgccgtg ctacactggg ctctggctct tctttcaggt 1500
 gggctctccg acctgacttc aacgtggggg tgtgggtgga ggctggccag agggccctgt 1560
 ccacctggg ggaggagagc ccaggccctg attacctagt cctctccac agcgttttcg 1620
 gccaccagc cacggaaagg cttctgggac tacttcagcc agaccagcgg ggacaaaggc 1680
 aggggtggagc agatccatca gcagaagatg gctcgcgagc ccgctgagt gccagggga 1740
 aggggtgtag gcgaaggag gagacagctg ggccatgcca tgatgacctg cctctgctgc 1800
 ctcaacctct gtggccgctg ctgggacaga ggaaaggagc ggtgctagct ctgtctgcag 1860
 atcccgcca tcctgggctc tttagcggcc tctgcctgca gccccgcct tgacaactcc 1920
 gtagctgttg ccccttgct cactgaggcg cgggacctgg gatcaatcgg gaggacgccc 1980
 gctgcagtcc ccagaatcaa aggatgatgt ggcgcatcta tgtttctttg gagagtgttg 2040
 taggtctgga tttgtatggg caatgtgttt gtgcttcgtg cgtgagttgt tactggccag 2100
 ggctaggaca agagccctcg accctggggc caacgcccctg cgtccttggt tccccagag 2160
 gatcagtgcg cgatgacttg gggacaaagg agatgatggg ggctagcagt ctgacggcct 2220
 ggatatctgt ccccttctcc aggaccctga aagacagcct tgagcaagac ctcaacaata 2280
 tgaacaagtt cctggaaaag ctgaggcctc tgagtgggag cgaggctcct cggctccac 2340
 aggaccgggt gggcatgcgg cggcagctgc aggagaggtt ggaggaggtg aaggctcgcc 2400
 tccagcccta catggcagag gcgcacgagc tgggtgggctg gaatttgag ggcttgccg 2460
 agcaactgaa gccctacacg atggatctga tggagcaggt ggccctgcgc gtgcaggagc 2520
 tgcaggagca gttgcgcgtg gtgggggaag acaccaaggc ccagttgctg gggggcgtgg 2580
 acgaggcttg ggctttgctg cagggactgc agagcccgct ggtgcaccac accggccgct 2640
 tcaaagagct cttccacca tacgccgaga gcctgggtgag cggcatcggg cgccacgtgc 2700

```

aggagctgca ccgcagtggt gctccgcacg cccccgccag ccccgcgcg ctcagtcgct 2760
gcggtgcaggt gctctcccgg aagctcacgc tcaaggccaa ggccctgcac gcacgcattcc 2820
agcagaacct ggaccagctg cgcgaagagc tcagcagagc ctttgcaggc actgggactg 2880
aggaagggggc cggcccgga cccagatgc tctccgagga ggtgcgccag cgacttcagg 2940
ctttccgcca ggacacctac ctgcagatag ctgccttcac tcgcgccatc gaccaggaga 3000
ctgaggaggt ccagcagcag ctggcgccac ctccaccagg ccacagtgcc ttcgccccag 3060
agtttcaaca aacagacagt ggcaagggtc tgagcaagct gcaggcccg ctggatgacc 3120
tgtgggaaga catcactcac agccttcctg accagggcc cagccatctg ggggaccct 3180
gaggatctac ctgcccaggc ccattcccag ctctctgctt ggggagcctt ggctctgagc 3240
ctctagcatg gttcagtcct tgaaagtggc ctgttgggtg gagggtggaa ggtcctgtgc 3300
aggacaggga ggccaccaaa ggggctgctg tctcctgcat atccagcctc ctgcgactcc 3360
ccaatctgga tgcattacat tcaccaggct ttgcaaacc agcctcccag tgctcatttg 3420
ggaatgctca ttagttactc cattcaagg tgagggagta gggagggaga ggcaccatgc 3480
atgtgggtga ttatctgcaa gcctgtttgc cgtgatgctg gaagcctgtg ccactacatc 3540
ctggagtttg gctctagtea cttctggctg cctggtggcc actgctacag ctggtccaca 3600
gagaggagca cttgtctccc cagggtgcc atggcagcta tcagggggat agaagggaga 3660
aagagaatat catggggaga acatgtgatg gtgtgtgaat atccctgctg gctctgatgc 3720
tggtgggtac gaaagggtgt ggctgtgata ggagagggca gagcccatgt ttcctgacat 3780
agctctacac ctaaataagg gactgaacct tcccaactgt gggagctcct taaaccctct 3840
ggggagcata ctgtgtgctc tccccatctc cagccctcc ctctgggttc ccaagttgaa 3900
gcctagactt ctggctcaaa tgaaatagat gtttatgata gaagtttgcc tggcgtgact 3960
ctcatttgga ccatgtctga aagcagtggc ctccaccata tccccaaagc acacccatca 4020
cccactccat tcccttctg ctctttctca tccaccact cccagtccag gtctgtcaaa 4080
gggggtctgg ctgggctctg cttcagggat cctggctaga caacggctgt ctgtcacacc 4140
tggcaggagg gcctgggtta cgggcccctc ctctgcacct gactgttca ctagcctgct 4200
ccccacagg acactgtgca tggaatgcag gctgtgtctg gaagagctgt ggccctggtg 4260
gacctaaagt tctgaggtg ggtgctctcc tttgttctg ctgttctaga gtttgaatgg 4320
cctcttttta tgccggaact tcttctgggg actcccctca ctcaggggca ccaatgctcc 4380
ctatagatcc cctgggaact gaaactgggg tgtggtggag gacgtggaaa gggtaaacac 4440
agctccttgt ctttggaact cctgtcccgg cccctttcc tcccagctca gcctactgtc 4500
cccggttct cagcacctgc ctgctcccc accccatagc acagaccca cacatatgta 4560
ggctcatcat gcctgcaggc tggctctccc tgacaccgtg gattttgaca atgttggcaa 4620
cagaactggg ttgtggacc agcacctgga gagagggaag gctagaaaag tagaaataat 4680
aaaagggttt tttgttggtt ttaggaaact ggaaaagcat aggtcaagg ctatgatggg 4740
gatgaggagg taggagtga aatgagggt gtgtacttga ggctgggatt ggggaaggta 4800
gtgatgagga cagaatagg agtggaaga acagaaagg acagaggat tcagggattg 4860
tgagagagg gaagaggct agccaccgg agggcgacc tagcacgcaa gcagtatgtg 4920
gccaacact ggaaccaag agcccggtc cgggcgcacc ttctcaggga ttcctcaggg 4980
acaagtccag ccccttgctg tcaaggctct tgtagaccga cgtagggacc aatagaaccc 5040
cgtgcggtgg agctattgt agggagcaa aaagtgcct ggttctaaga ggacgtctta 5100
ggggaagtga cggctgagtt gaggtggatc cggctggcga tgtaagggtc gagccatata 5160
aaccgggaa ccgggagccc ttgacgacat tgttccccga gtgccggag tctgcggtt 5220
tttttgggt ggtggcagct ggcggaagt acgggagagg ggtggggccg cgagagcggc 5280
ggaagtagga agccgaggtc tgaattgcgc gtggtggcca tggcggccag cggggctgtg 5340
gaaccagggc ccccgggggc tgccgtcgcc ccgtcgccc c

```

<210> 5

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> sequencing oligonucleotide PrimerPU

<400> 5

tgtaaaacga cgccagtc

18

<210> 6
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> sequencing oligonucleotide PrimerRP

<400> 6
caggaaacag ctatgacc

18

Patent Pending